REPORT RESUMES

ED 003 677 24

AN EXPLORATORY STUDY OF THE EFFECTS OF BIBLIOTHERAPY ON THE BEHAVIORAL PATTERN OF ADOLESCENTS.

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REPORT NUMBER CRP-S-067 PUB DATE 31 AUG 65
EDRS PRICE MF-$0.18 HC$4.28 107P.

DESCRIPTORS- JUNIOR HIGH SCHOOLS, SENIOR HIGH SCHOOLS, READING MATERIALS, *READING PROGRAMS, STUDENT BEHAVIOR, *BEHAVIOR DEVELOPMENT, *BIBLIOTHERAPY, MOTIVATION, *EMOTIONAL ADJUSTMENT, *SOCIAL ADJUSTMENT, QUESTIONNAIRES, ACHIEVEMENT TESTS, EMPORIA, KANSAS, SHAWNEE MISSION, JUNIOR SENIOR HIGH SCHOOL PERSONALITY QUESTIONNAIRE, SRA ACHIEVEMENT SERIES, MOONEY PROBLEM CHECK LIST, HAGGERTY OLSON WICKMAN BEHAVIOR RATING SCHEDULES

THE EXTENT TO WHICH A PLANNED PROGRAM OF READING COULD SIGNIFICANTLY INFLUENCE THE BEHAVIOR OF A SELECTED GROUP OF ADOLESCENTS WAS STUDIED. EFFORTS WERE MADE TO DESIGN THE STUDY IN SUCH A WAY THAT THE INVESTIGATORS COULD DETERMINE WHETHER SIGNIFICANT DIFFERENCES EXISTED IN THE AREAS OF PERSONALITY, PERSONAL PROBLEMS, ACHIEVEMENT, ATTENDANCE, AND DISCIPLINE BETWEEN TWO GROUPS OF STUDENTS, ONE OF WHICH HAD BEEN SUBJECTED TO BIBLIOTHERAPY WHILE THE OTHER HAD SERVED AS A CONTROL GROUP. THE DEGREE OF CHANGE BETWEEN THE EXPERIMENTAL GROUP AND THE CONTROL GROUP IN PERSONALITY WAS ASSESSED BY ADMINISTERING PRE- AND POST-TESTS OF THE JUNIOR-SENIOR HIGH SCHOOL PERSONALITY QUESTIONNAIRE, IN ACHIEVEMENT BY SRA ACHIEVEMENT SERIES, IN PERSONAL AND SOCIAL PROBLEMS BY THE MOONEY PROBLEM CHECK LIST, AND IN BEHAVIORAL PROBLEMS BY THE HAGGERTY-OLSON-WICKMAN BEHAVIOR RATING SCHEDULES. SIGNIFICANT CHANGE WAS EVIDENCED IN ACHIEVEMENT BETWEEN STUDENTS WHO RECEIVED BIBLIOTHERAPY AND THOSE STUDENTS WHO DID NOT. A LONGITUDINAL STUDY WAS PROPOSED. (GD)

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August 31, 1965

Final Report

Cooperative Research Project No. S-067

The research reported herein was supported by the Cooperative Research Program of the Office of Education, U. S. Department of Health, Education, and Welfare.

ED 003677

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ACKNOWLEDGEMENTS

The investigators are indebted to the following for their contributions to the research:

Dr. Howard McEachen, Superintendent of the Shawnee Mission, Kansas, Public Schools; Dr. Ralph Chalender, Principal of Milburn Junior High School; Mr. Robert Lewis, Principal of Hillcrest Junior High School; Dr. Herbert Bruning, Assistant Superintendent, and Dr. James Harmon, Curriculum Director, for their permission to conduct the project and for their frequent administrative assistance.

The teachers of the experimental and control groups and the students who submitted to lengthy testing programs.

Mr. John Sullivan, Assistant Professor of Education at Kansas State Teachers College, for his help with the analysis of data.

Mr. Robert Bartlett, Research Assistant, and Miss Deanna Widler, Project Secretary for their excellent service.

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TABLE OF CONTENTS

Page

ACKNOWLEDGMENTS iii

TABLE OF CONTENTS v

LIST OF TABLES vi

LIST OF FIGURES viii

PART ONE: INTRODUCTION 1

I. PROBLEM 3
II. RELATED RESEARCH 5
III. PROCEDURES 8

PART TWO: ANALYSIS OF DATA 17

PART THREE: SUMMARY, FINDINGS AND CONCLUSIONS 51

I. SUMMARY 53
II. FINDINGS 54
III. CONCLUSIONS 59
IV. RECOMMENDATIONS FOR FURTHER STUDY 60

PART FOUR: SIDE STUDY 61
(THE RELATIONSHIP BETWEEN PERCEIVED PROBLEMS OF
ADOLESCENTS AND CERTAIN PERSONALITY FACTORS)

APPENDIX A: TABLES OF ADJUSTED MEANS 71

APPENDIX B: PARTIAL LIST OF BOOKS USED 85
(CATEGORIZED BY AREAS OF INTEREST)

BIBLIOGRAPHY 99

LIST OF TABLES AND FIGURES

TABLE PAGE

I. A COMPARISON OF THE MEAN, STANDARD DEVIATION, "t" SCORES, AND PROBABILITY VALUES OF THE MEAN DIFFERENCES BETWEEN THE EXPERIMENTAL AND CONTROL GROUPS OF THE UNITED SCORES OF THE MOONEY PROBLEM CHECK LIST 21

II. A COMPARISON OF THE MEAN, STANDARD DEVIATION, "t" SCORES, AND PROBABILITY VALUES OF THE MEAN DIFFERENCES BETWEEN THE EXPERIMENTAL AND CONTROL GROUPS ON THE INITIAL SCORES OF THE HIGH SCHOOL PERSONALITY QUESTIONNAIRE 26

III. A COMPARISON OF THE MEAN, STANDARD DEVIATION, "t" SCORES, AND PROBABILITY VALUES OF THE MEAN DIFFERENCES BETWEEN THE EXPERIMENTAL AND CONTROL GROUPS ON THE INITIAL SCORES OF THE SRA ACHIEVEMENT SERIES 27

IV. ANALYSIS OF COVARIANCE FOR THE MOONEY PROBLEM CHECK LIST (EXPERIMENTAL AND CONTROL) 29

V. ANALYSIS OF COVARIANCE FOR THE MOONEY PROBLEM CHECK LIST - FIRST QUARTILE (EXPERIMENTAL AND CONTROL) 31

VI. ANALYSIS OF COVARIANCE FOR THE MOONEY PROBLEM CHECK LIST - SECOND AND THIRD QUARTILES (EXPERIMENTAL AND CONTROL) 32

VII. ANALYSIS OF COVARIANCE FOR THE MOONEY PROBLEM CHECK LIST - FOURTH QUARTILE (EXPERIMENTAL AND CONTROL) 33

VIII. ANALYSIS OF COVARIANCE FOR THE HIGH SCHOOL PERSONALITY QUESTIONNAIRE (EXPERIMENTAL AND CONTROL) 35

IX. ANALYSIS OF COVARIANCE FOR THE HIGH SCHOOL PERSONALITY QUESTIONNAIRE - FIRST QUARTILE (EXPERIMENTAL AND CONTROL) . . . 38

X. ANALYSIS OF COVARIANCE FOR THE HIGH SCHOOL PERSONALITY QUESTIONNAIRE - SECOND AND THIRD QUARTILES (EXPERIMENTAL AND CONTROL) 39

XI. ANALYSIS OF COVARIANCE FOR THE HIGH SCHOOL PERSONALITY QUESTIONNAIRE - FOURTH QUARTILE (EXPERIMENTAL AND CONTROL) . . 40

XII. ANALYSIS OF COVARIANCE FOR THE SRA ACHIEVEMENT SERIES (EXPERIMENTAL AND CONTROL) 43

XIII. ANALYSIS OF COVARIANCE FOR THE SRA ACHIEVEMENT SERIES - FIRST QUARTILE (EXPERIMENTAL AND CONTROL) 45

TABLE PAGE

XIV. ANALYSIS OF COVARIANCE FOR THE SRA ACHIEVEMENT SERIES - SECOND AND THIRD QUARTILES (EXPERIMENTAL AND CONTROL) 46

XV. ANALYSIS OF COVARIANCE FOR THE SRA ACHIEVEMENT SERIES - FOURTH QUARTILE (EXPERIMENTAL AND CONTROL) 47

XVI. THE GROUP MEAN, STANDARD DEVIATION, "t" SCORE, AND PROBABILITY VALUES OF THE HAGGERTY-OLSON-WICKMAN BEHAVIOR RATING SCHEDULES 50

XVII. COEFFICIENTS OF CORRELATION BETWEEN FACTORS OF THE MOONEY PROBLEM CHECK LIST AND THE FOURTEEN PERSONALITY FACTORS MEASURED BY THE H.S.P.Q. 67

XVIII. THE FALL MEAN, SPRING MEAN, AND ADJUSTED SPRING MEAN OF THE MOONEY PROBLEM CHECK LIST (EXPERIMENTAL AND CONTROL) 73

XIX. THE FALL MEAN, SPRING MEAN, AND ADJUSTED SPRING MEAN OF THE FIRST QUARTILE OF THE MOONEY PROBLEM CHECK LIST (EXPERIMENTAL AND CONTROL) 74

XX. THE FALL MEAN, SPRING MEAN, AND ADJUSTED SPRING MEAN OF THE SECOND AND THIRD QUARTILES OF THE MOONEY PROBLEM CHECK LIST (EXPERIMENTAL AND CONTROL) 75

XXI. THE FALL MEAN, SPRING MEAN, AND ADJUSTED SPRING MEAN OF THE FOURTH QUARTILE OF THE MOONEY PROBLEM CHECK LIST (EXPERIMENTAL AND CONTROL) 76

XXII. THE FALL MEAN, SPRING MEAN, AND ADJUSTED SPRING MEAN OF THE HIGH SCHOOL PERSONALITY QUESTIONNAIRE (EXPERIMENTAL AND CONTROL) 77

XXIII. THE FALL MEAN, SPRING MEAN, AND ADJUSTED SPRING MEAN OF THE FIRST QUARTILE OF THE HIGH SCHOOL PERSONALITY QUESTIONNAIRE (EXPERIMENTAL AND CONTROL) 78

XXIV. THE FALL MEAN, SPRING MEAN, AND ADJUSTED SPRING MEAN OF THE SECOND AND THIRD QUARTILES OF THE HIGH SCHOOL PERSONALITY QUESTIONNAIRE (EXPERIMENTAL AND CONTROL) 79

XXV. THE FALL MEAN, SPRING MEAN, AND ADJUSTED SPRING MEAN OF THE FOURTH QUARTILE OF THE HIGH SCHOOL PERSONALITY QUESTIONNAIRE (EXPERIMENTAL AND CONTROL) 80

XXVI. THE FALL MEAN, SPRING MEAN, AND ADJUSTED SPRING MEAN OF THE SRA ACHIEVEMENT SERIES (EXPERIMENTAL AND CONTROL) 81

TABLE PAGE

XXVII. THE FALL MEAN, SPRING MEAN, AND ADJUSTED SPRING MEAN OF THE FIRST QUARTILE OF THE _SRA ACHIEVEMENT SERIES_ (EXPERIMENTAL AND CONTROL) 82

XXVIII. THE FALL MEAN, SPRING MEAN, AND ADJUSTED SPRING MEAN OF THE SECOND AND THIRD QUARTILES OF THE _SRA ACHIEVEMENT SERIES_ (EXPERIMENTAL AND CONTROL) 83

XXIX. THE FALL MEAN, SPRING MEAN, AND ADJUSTED SPRING MEAN OF THE FOURTH QUARTILE OF THE _SRA ACHIEVEMENT SERIES_ (EXPERIMENTAL AND CONTROL) 84

FIGURE

I. _JR.-SR. H.S.P.Q._ TEST PROFILE 23

II. TITLES AND SYMBOLS FOR DESIGNATING THE FOURTEEN DIMENSIONS . . 66

PART ONE

INTRODUCTION

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I. Problem.

The purpose of this research project was to determine the extent to which a planned program of reading could significantly influence the behavior of a selected group of adolescents. Educators have long believed that books have therapeutic value. This belief is based on the conviction that students bring their needs and anxieties into what they read. To have therapeutic value, the reading material must in some way meet their needs or relieve their anxieties. Whether a selected reading program in the regular classroom can help foster healthy social and emotional adjustment is of significant importance to education.

Although articles have been written from time to time which theorize the value of bibliotherapy, an intensive search of the literature revealed a lack of research designed to evaluate the therapeutic value of books. Research is needed which measures the effectiveness of selected readings as a means of bringing about desirable change in the emotional and social growth of the adolescent. Consequently, the problem investigated was the following: "Can a program of selected readings based on personal need as indicated by certain diagnostic procedures significantly change the behavioral patterns of selected adolescents?"

A. Definition of Terms

Bibliotherapy -- The use of selected readings to promote social and emotional adjustment; the utilization of vicarious experiences provided in selected readings to meet personal and social needs; the treatment of developmental problems or adolescents' needs through the application of selected vicarious experiences found in books.

Social Problems -- Those problems encountered by adolescents which involve social relations with peer and adult groups. These problems may be encountered in the process of making friends, conforming to peer standards, or being accepted by peer and adult groups.

Adjustment -- A relatively harmonious relationship of an individual with his environment and with himself.

Maladjustment -- Disharmony with one's environment from failure to reach a satisfactory adjustment between one's desires and one's conditions in life.

B. Basic Assumptions

The paucity of educational research dealing with bibliotherapy led the investigators to rely on certain assumptions as a basis for formulating the hypothesis to be tested by the experimental design. The basic assumptions were these:

1. Adolescents have problems of a developmental nature which may affect both their social and academic behavior.
2. These developmental problems of the adolescent can be identified through certain diagnostic procedures available to the classroom teacher.
3. Insights and understandings are often achieved in reading through the identification of the reader with fictional characters.
4. Insights and understandings into the developmental problems of an individual are basic to the solution of these problems.

Based on the above listed assumptions, the investigators proposed to test the following hypothesis:

> There will be a significant difference in changes in behavioral patterns between students who receive bibliotherapy and students who do not receive bibliotherapy. Measurable change will be evidenced in (1) personality, (2) reduction of problems, (3) achievement, (4) truancy, and (5) disciplinary problems.

Although it was impossible to assess all of the effects of bibliotherapy, efforts were made to validate the hypothesis by producing evidence that those students who had the benefit of bibliotherapy for one year would (1) score significantly higher in measures of personality, (2) show significantly fewer problems as measured by a problems check list, (3) score significantly higher on an instrument designed to measure achievement, (4) have fewer cases of truancy, and (5) be involved in fewer disciplinary problems.

II. Related Research.

Much of the research in bibliotherapy has been done at the clinical level. The definition of bibliotherapy, in clinical reference, involves one or more skilled therapists and one or more maladjusted individuals who need clinical treatment.

In educational literature, while little controlled research has been forthcoming, the term bibliotherapy has appeared with increasing frequency since 1950. However, the educational definition is somewhat different from clinical usage. Russell and Shrodes[14] state that the educational theory of bibliotherapy conveys that all children experience developmental problems of adjustment, and that most children can be helped to solve these problems through readings.

Many references are made to the value of bibliotherapy. Appel[1] lists six ways in which bibliotherapy can help the individual:

1. Acquisition of knowledge about human behavior.
2. Opportunity to know himself.
3. Development of interest in something outside himself.
4. Opportunity to find a controlled release for unconscious problems.

5. Opportunity to identify and compensate.
6. Opportunity to gain insight into his own behavior.

Bryan[2] states specific ways in which bibliotherapy can help develop maturity and nourish mental health. Among them are such values as:

1. Giving the person the feeling that others face the same problem.
2. Helping him see that there is more than one possible solution to his problem.
3. Providing the facts needed in solving a problem.
4. Encouraging the reader to adopt a constructive course of action.

Rosenblatt[13] lists the social effects which she believes prolonged contact of personalities in books may have on the reader. These include:

1. Enabling the reader to put himself in another's place.
2. Acquainting the reader with attitudes and expectancies of his group.
3. Extending the reader's awareness beyond his own family, community, and nation.

While there is little educational research dealing directly with bibliotherapy, some studies with implications in this area are reported by Russell and Shrodes.[14]

Two studies, one by Sister Mary Lorang[7] and another by Nila B. Smith,[16] involved the use of questionnaires in which elementary and high school students reported effects of reading and changes in attitudes and behavior in over 50 per cent of the readers. Behavior is less often changed in elementary students than in high school readers. In neither study was any attempt made to use objective tests.

The need for experimental research is emphasized by Russell and Shrodes[14] in the following statement:

> From at least the days of the Greeks, great teachers have always used literature in attempts to influence their pupils' attitudes and ideals. Nearly all the studies cited claim some influence on the adjustments of the persons who have read prescribed books or stories, but these claims have not always been validated by study of the later behavior of the patient or pupil.

The concluding sentence of their review of the literature in the field states:

> Research and practices are urgently needed in the schools and other institutions if this new technique for human welfare is to become generally available.[14]

Witty[19] reports that Thomas V. Moore, Director of the Child Center of the Catholic University of America, after conducting a study of bibliotherapy at the Child Center, concluded that merely reading a book is not sufficient to change a child's attitude. However, when guidance is offered so that the child will apply the principles he discovers in reading to his own problems, bibliotherapy is effective and may be profitably employed in the classroom and in individual guidance.

H. W. Hartley[6] reports a study in which the Hartshorn-May test of honesty was used to evaluate the effect on junior high school students of stories with a point. Verbal indications in the experimental group were positive, but test results showed less honesty in both control and experimental groups at the end of the term. Possibly pressure for grades induced this, indicating that pressing needs may overshadow ethical and philosophical standards. No significant difference was found between the experimental group (which had read only stories with a point toward honesty) and the control group (which had read stories on various themes, but none on honesty).

No other studies in the experimental literature indicate the use of tests to evaluate studies. However, many expressions of faith in the basic theory and process of bibliotherapy are given. Since there is obviously some basis for this wide-spread theoretical acceptance, researchers should be convinced of the need for scientific validation.

III. Procedures.

Efforts were made to design the study in such a way that the investigators could determine whether significant differences existed in the areas of personality, personal problems, achievement, attendance, and discipline between two groups of students, one of which had been subjected to bibliotherapy while the other had served as a control group.

A. Experimental Design

There were two groups of students involved in the study: (1) the experimental group composed of approximately 120 eighth and ninth grade students enrolled in the junior high schools of the Shawnee Mission Public School System of suburban Kansas City, Kansas, and (2) the control group composed of approximately the same number of eighth and ninth graders in the same schools from which the experimental group was drawn. The experimental groups received bibliotherapy from teachers who had been trained in the techniques of bibliotherapy by the investigators. The control group did not receive bibliotherapy.

B. Research Population

The students who participated in this study were randomly selected by classes. There were six classes of ninth graders and two classes of eighth graders. The eight classes in the study were equated as nearly as possible and the four classes required for the experimental group were selected from this population by a random method. The remaining classes served as the control group. The total number of students for whom complete data were collected and who were included in this study was approximately 193, of which 102 were in the experimental group and 91 in the control group.

C. The Teachers

The teachers of both the experimental and control groups were those teachers who regularly taught these students in the core classes of the junior high schools. These core classes were taught in a two-hour block of time and integrated the social sciences and communicative arts. The teachers of the experimental group were determined by the same procedures which established the student population for the experimental and control groups in that they were the regularly assigned teachers of the classes chosen to participate in the study.

D. The Experimental Program

The experimental program was designed to determine the significance of change between the experimental group in five areas: (1) personality, (2) personal and social problems, (3) achievement, (4) attendance, and (5) disciplinary infractions.

The experimental group, along with the control group, were administered the IPAT High School Personality Questionnaire, Mooney Problem Check List, and the SRA Achievement Series in September, 1964. In addition to these measures, the experimental groups were interviewed by the trained teachers in an effort to identify the students' problems of personal and social nature. When the teacher determined that an individual student had a problem and when she had identified the nature of the problem bibliotherapy was applied. Bibliotherapy consisted of the selection and recommendation of a book or reading from the bibliography which had possible therapeutic value for the specific problem of the student. The investigators strongly recommended that the reading not be forced upon the student but rather that encouragement be given and provisions made which would bring the student and book together.

The initial efforts to bring the student and the book together were begun in September, 1964, with the teachers of the experimental groups making a special effort to get to know their students by using the following techniques and activities:

1. Introductions and buzz sessions
2. Questionnaires
3. Profiles
4. Checklists
5. Life-time lines
6. Interest exhibits
7. Hobby and home maps
8. Self cartoons
9. Diaries and logs
10. Pupil-teacher levels of reading conference
11. Oral and written reactions to favorite books, poems, music, and art.
12. Teen-age bulletin boards
13. Three wishes
14. Sociograms
15. Theme -- "If I Had Only 24 Hours to Live"

Using these activities as a starting point, the students were encouraged to disclose their interests and their problems to the teachers of the experimental classes, who then recommended specific books with themes which related directly to those interests and problems.

During the course of the experimental program, the investigators made twenty-one visits to the experimental classes: two in September, four in October, three in November, one in December, two in January, three in February, three in March, and three in April. The majority of these visits were made by Jeanette Bigge, co-director of the project and an experienced practitioner of bibliotherapy. On each of these visits the investigator requested from the teachers the names of those students who needed special attention. The investigator then interviewed those students and compiled booklists for them. Books which were not available in the school library were made available by the investigator. Altogether, more than 700 different titles and a total of 1967 books were read by the experimental groups during the school year.

E. Description of the Instruments Used

The degree of significance of change between the experimental group and the control group in personality was assessed by administering pre- and post-tests of the Jr.-Sr. High School Personality Questionnaire by R. B. Cattell and Associates: Institute for Personality and Ability Testing. The 14 scales in the test include schizothymia vs. cyclothymia; low general mental capacity vs. general intelligence; ego weakness vs. ego strength; phlegmatic temperament vs. excitability; submissiveness vs. dominance; desurgency vs. surgency; lack of acceptance of group moral standards vs. super ego strength; threctia vs. parmia; harria vs. premsia; dynamic simplicity vs. neurasthenic self-critical tendency; confident adequacy vs. guilt proneness; group dependency vs. self-sufficiency; poor self sentiment formation vs. high strength of self sentiment; and low ergic tension vs. high ergic tension.

Efforts to assess changes in achievement were made through the use of the SRA Achievement Series, published by the Science Research Associates, Inc., 259 East Erie Street, Chicago, Illinois. The SRA Achievement Series tests achievement in reading, arithmetic, language arts, work study skills, and language perception. Initial tests were given in September, and post-tests of an alternate form were administered in May, 1965.

Personal and social problems were assessed through the use of the Mooney Problem Check List. This check list was administered in September, 1964, and again in May, 1965, in an effort to determine alleviation of personal and social problems as a result of bibliotherapy.

Efforts to determine significant differences between the experimental group and the control group in terms of the behavioral problems as indicated by overt infractions of school policies and regulations, as well as ethical behavior as indicated by conduct with peer groups, were made through the use of the Haggerty-Olson-Wickman Behavior Rating Schedules. This measure attempts to assess: (1) disinterest in school work, (2) cheating, (3) unnecessary tardiness, (4) lying, (5) defiance to discipline, (6) marked overactivity, (7) unpopularity with children, (8) temper outbursts, (9) bullying, (10) speech difficulties, (11) imaginative lying, (12) sex offenses, (13) stealing, (14) truancy, and (15) obscene notes, talk, and pictures. Since the teachers of both the experimental and control groups were not sufficiently acquainted with their classes to complete these behavior rating schedules in September, this schedule was administered in May, 1965.

F. Training the Teachers of the Experimental Groups

In August, 1964, teachers of the four experimental groups attended a three-week workshop on the campus of Kansas State Teachers College, Emporia. This workshop was conducted by the investigators and was designed to acquaint the teacher with techniques of bibliotherapy. The teachers of the experimental groups were familiarized with standardized tests designed to point out variations from normal or usual behavior. Instruction was given in the analysis and interpretation of standardized tests of achievement, personality, interests, and problems. Emphasis was placed on teacher-devised inventories, checklists, profiles, and other techniques of getting to know the student. The training of the teacher in these areas centered around instruction in the method of conducting personal interviews, using sociometric techniques to disclose peer evaluations, the keeping of anecdotal records, and personal observations. The workshop culminated with the trainee well-prepared to conduct case studies designed to disclose behavioral problems.

The second phase of the training for teachers of experimental groups emphasized "finding the right book for the right student at the right time." This entailed familiarity with an extensive bibliography of books of therapeutic value for adolescents' intellectual and emotional problems. An extensive bibliography was compiled and categorized in terms of possible therapeutic value.

The workshop was devoted primarily to the following activities:

1. Discussion
    a. What does the term bibliotherapy mean to you?
    b. Should one develop discrimination in reading to become a "well read" person or should one read for enjoyment and escape?

   c. How are books and students at Shawnee Mission related to each other?

2. Written reactions
   - a. What makes a good book?
   - b. Has the reading of any book changed your attitude? Aided you in adjusting to an ideal? Helped you in solving a personal problem? (Book reactions -- Hawaii, Mitchener, James; Profiles in Courage, Kennedy, John F.; Uhuru, Ruark, Robert; Black Like Me, Griffin, John H.)
3. Research concerning bibliotherapy
   - a. Card catalogue and Readers' Guide to Periodical Literature in William Allen White Library
   - b. Book shelf in investigator's classroom
   - c. Conducted tour of Roosevelt's Laboratory School Library
4. Understanding the human material
   - a. Demonstration by adolescents and investigators
     - (1) Teen-age interests through bulletin boards, pictures, hobby maps, mood music, library browsing, book displays, theme reactions, etc.
     - (2) Individual reading conference between pupil and teacher
     - (3) Book circles to discuss teen-age problems
     - (4) Unfinished story reactions and decision making
     - (5) Motivating pupils to read by teacher reviewing several books and guiding pupils in book selection according to developmental needs
     - (6) Pupil-teacher discussion concerning developmental growth patterns of adolescents and characteristics needed by teachers to understand these adolescent growth patterns

        b. Question period for teachers learning about bibliotherapy

    5. Investigator and teacher discussion on "The Role of the Teacher in Bibliotherapy"
        a. Enthusiasm concerning adolescent books
        b. Sharing "book plots" with pupils
            (1) Knowing themes of 200-300 adolescent books
            (2) Developing book suggestions at strategic times
        c. Emphasis on books relating to the needs of the adolescents rather than mere quantity of books read
        d. A classroom with a reading atmosphere
            (1) Bulletin board to motivate reading
            (2) Accessibility of recreational books which invite pupils to read when they have a few free moments or they are waiting for the teacher to help them with individual needs
            (3) Accessibility of books for all levels of reading ability
            (4) Accessibility of books to broaden and extend interests
        e. Setting the example that reading is fun
            (1) Talking about books, stories, poems
            (2) Reading excerpts of some to pupils
            (3) Helping individuals understand that some of us read at different rates and levels just as we grow at different rates
    6. Identifying patterns of adolescent development
        a. A detailed written description of two students, one boy and one girl
            (1) Physical description

  - **(2) Interests and skills**
  - **(3) Strengths and weaknesses in learning**
  - **(4) Home background**
  - **(5) Peer relationship**
  - **(6) Adolescent reading program**
  - **(7) Travels**
  - **(8) Predictions**
- **b. Discussion of above reports**

PART TWO

ANALYSIS OF DATA

The Mean, Standard Deviation, Reliability of Difference, and an Analysis of Covariance of Scores Made by the Experimental and Control Groups.

Complete data were obtained for 193 students of the original 217 who were tested in September, 1964. Drop-outs and transfers accounted for the decrease of 24 students. Of the 193 students remaining, 102 were in the experimental group and 91 in the control group. All data presented are based on the 193 students who completed the study, and were obtained from the testing program and official school records.

The testing program consisted of pre- and post-tests of (1) the Mooney Problem Check List, (2) the High School Personality Questionnaire, and (3) the SRA Achievement Series. Alternate forms of the same tests were used for the post-tests in all but the Mooney Problem Check List. The Haggerty-Olson-Wickman Behavior Rating Schedule was administered to both groups in May, 1965.

The analysis of data appears first in Tables I through III, which are structured to identify the test, the experimental and control groups, the fall mean and standard deviation, the "t" score, and the reliability of difference between the groups. The "t" score values have been computed on the difference between the means of the fall or initial tests of the experimental and control groups. For the purposes of this study it was determined that a "t" score showing significance at the .05 level of confidence or above would be considered significant, that scores falling between the .05 and .10 level of confidence would be considered as approaching significance, and those scores falling below the .10 level would be considered not statistically significant.

Table I presents the comparison of the mean, standard deviation, "t" score, and the probability value of the difference between the means of the experimental and the control groups on the Mooney Problem Check List, which has seven categories or classifications of problems as follows:

I. Health and Physical Development
II. School
III. Home and Family
IV. Money, Work, and the Future
V. Boy-Girl Relations
VI. Relations with People in General
VII. Self-centered Problems

Area VIII in Table I represents the composite number of problems reported by the student.

TABLE I

A COMPARISON OF THE MEAN, STANDARD DEVIATION, "t" SCORES, AND PROBABILITY VALUES OF THE MEAN DIFFERENCES BETWEEN THE EXPERIMENTAL AND CONTROL GROUPS OF THE UNITED SCORES OF THE MOONEY PROBLEMS CHECK LIST

Area No.	Mooney	Group	Fall Mean	Fall Deviation	t	P
I	HPD	Exp.	2.98	2.72	.33	.74
		Cont.	2.85	2.51		
II	SCH	Exp.	6.90	5.23	1.67	.09
		Cont.	5.69	4.81		
III	HF	Exp.	5.24	5.84	2.47	.014
		Cont.	3.41	4.27		
IV	MWF	Exp.	4.23	3.44	.96	.34
		Cont.	3.77	3.24		
V	BG	Exp.	4.51	4.01	.77	.44
		Cont.	4.08	3.85		
VI	PG	Exp.	5.17	4.92	2.24	.03
		Cont.	3.74	3.85		
VII	SC	Exp.	5.55	4.84	2.07	.04
		Cont.	4.24	3.95		
VIII	Total	Exp.	34.50	24.29	2.07	.04
		Cont.	27.06	19.62		

Table I indicates that significant differences between the experimental and the control groups existed initially on Areas II, School; III, Home and Family; VI, Relations with People in General; VII, Self-centered Problems; and VIII, the composite or total number of problems reported by the students. In each case where a significant difference existed, more problems were reported in the experimental group than in the control group.

Since both the experimental and the control groups were selected randomly, no significant differences between the experimental and control groups on the initial test scores were anticipated by the investigators. Significant differences were found not only on the Mooney Problem Check List, but again in certain areas of the SRA Achievement Series as reported in Table III. These initial differences on two of the three major sources of data caused the investigators to reject the assumption of equated groups and the statistical treatment of data based on that assumption. Consequently an analysis of covariance was used to compensate for the initial inequities on subsequent treatments of data presented following Table III.

Efforts to assess personality change between the two groups as a result of bibliotherapy were made through the use of the Jr.-Sr. High School Questionnaire. The H.S.P.Q. provides sten scores on fourteen factors of personality. The fourteen factors and the high and low score descriptions of each are presented in Figure I.

FIGURE I

JR.-SR. HIGH SCHOOL PERSONALITY QUESTIONNAIRE TEST PROFILE

Low Score Description	Standard Ten Score (Sten)				Average						High Score Description
	1	2	3	4	5	6	7	8	9	10	
Reserved, Detached, Critical, Cool (Sizothymia)	.	.	.	.	A .	.	.	.	.	.	Outgoing, Warmhearted, Easy-going, Participating (Cyclothymia)
Less Intelligent, Concrete-Thinking (Lower scholastic mental capacity)	.	.	.	.	B .	.	.	.	.	.	More Intelligent, Abstract-Thinking, Bright (Higher scholastic mental capacity)
Affected by Feelings, Emotionally Less Stable, Easily Upset, Changeable (Lower ego strength)	.	.	.	.	C .	.	.	.	.	.	Emotionally Stable, Faces Reality, Calm (Higher ego strength)
Phlegmatic, Deliberate, Inactive, Stody (Phlegmatic Temperament)	.	.	.	.	D .	.	.	.	.	.	Excitable, Impatient, Demanding, Over-Active (Excitability)
Obedient, Mild, Conforming (Submissiveness)	.	.	.	.	E .	.	.	.	.	.	Assertive, Independent, Aggressive, Stubborn (Dominance)
Sober, Prudent, Serious, Taciturn (Desurgency)	.	.	.	.	F .	.	.	.	.	.	Happy-go-lucky, Heedless, Gay, Enthusiastic (Surgency)
Disregards Rules, Undependable, By-passes Obligations (Weaker superego strength)	.	.	.	.	G .	.	.	.	.	.	Conscientious, Persevering, Staid, Rule-Bound (Stronger superego strength)
Shy, Restrained, Diffident, Timid (Threctia)	.	.	.	.	H .	.	.	.	.	.	Venturesome, Socially Bold, Unhibited, Spontaneous (Parmia)

Continued
FIGURE I

JR.-SR. HIGH SCHOOL PERSONALITY QUESTIONNAIRE TEST PROFILE

Low Score Description	1	2	3	4	5	6	7	8	9	10	High Score Description
					Standard Ten Score (Sten) Average						
Tough-Minded, Self-Reliant, Realistic No-Nonsense (Harria)	.	.	.	.	I .	.	.	.	.	.	Tender-Minded, Dependent, Over-Protected Sensitive (Premsia)
Vigorous, Goes Readily With Group Zestful, Given to Action (Zeppia)	.	.	.	.	J .	.	.	.	.	.	Doubting, Obstructive, Individualistic, Reflective, Internally Restrained, Unwilling to act (Coasthenia)
Self-Assured, Placid, Secure, Serene (Untroubled adequacy)	.	.	.	.	O .	.	.	.	.	.	Apprehensive, Worrying, Depressive, Troubled (Guilt proneness)
Group-Dependent, A "Joiner" and Sound Follower (Group Adherence)	.	.	.	.	Q_2 .	.	.	.	.	.	Self-Sufficient, Prefers Own Decisions Resourceful (Self-Sufficiency)
Casual, Careless of Social Rules, Untidy, Follows Own Urges (Low Integration)	.	.	.	.	Q_3 .	.	.	.	.	.	Controlled, Socially-Precise, Self-Disciplined, Compulsive (High self-concept control)
Relaxed, Tranquil, Torpid, Unfrustrated (Low ergic tension)	.	.	.	.	Q_4 .	.	.	.	.	.	Tense, Driven, Overwrought, Fretful (High ergic tension)

A sten of	1	2	3	4	5	6	7	8	9	10	is obtained
by about	2.3	4.4	9.2	15	19.1	19.1	15	9.2	4.4	2.3	% of teenagers

The comparison of the mean scores, standard deviation, "t" scores, and the probability value of the differences between the means of the experimental and control groups on the initial administration of the High School Personality Questionnaire are presented in Table II.

No significant differences between the experimental and the control group were indicated by Table II. Factor F (see Figure I) approached significance at the .10 level of confidence and indicated that the control group tended toward the high score description: happy-go-lucky, heedless, gay, enthusiastic, (surgency).

The SRA Achievement Series tests achievement in work-study skills, reading, arithmetic, language arts and language perception. Table III presents a comparison of the mean, standard deviation, "t" scores, and the probability values of the mean difference between the experimental and control group on the initial scores of the SRA.

TABLE II

A COMPARISON OF THE MEAN, STANDARD DEVIATION, "t" SCORES, AND PROBABILITY VALUES OF THE MEAN DIFFERENCES BETWEEN THE EXPERIMENTAL AND CONTROL GROUPS ON THE INITIAL SCORES OF THE HIGH SCHOOL PERSONALITY QUESTIONNAIRE

HSPQ Factor	Group	Fall Mean	Fall Deviation	t	P
A	Exp.	5.77	2.16	.07	.94
	Cont.	5.75	1.92		
B	Exp.	5.24	1.87	.92	.36
	Cont.	5.00	1.79		
C	Exp.	5.57	2.18	.30	.76
	Cont.	5.48	1.87		
D.	Exp.	4.93	1.92	.69	.48
	Cont.	5.11	1.65		
E	Exp.	5.82	1.98	.91	.36
	Cont.	5.55	2.09		
F	Exp.	5.78	1.97	1.66	.10
	Cont.	6.21	1.60		
G	Exp.	5.83	1.87	1.36	.18
	Cont.	5.47	1.82		
H	Exp.	5.84	1.91	.76	.44
	Cont.	5.65	1.63		
I	Exp.	5.45	1.89	.06	.96
	Cont.	5.46	1.75		
J	Exp.	5.13	1.97	.40	.68
	Cont.	5.23	1.60		
O	Exp.	5.15	1.97	.50	.62
	Cont.	5.01	1.72		
Q_2	Exp.	4.96	2.01	.30	.76
	Cont.	4.89	1.82		
Q_3	Exp.	5.16	2.15	.31	.76
	Cont.	5.25	2.09		
Q_4	Exp.	5.24	2.10	.94	.34
	Cont.	5.52	1.91		

TABLE III

A COMPARISON OF THE MEAN, STANDARD DEVIATION, "t" SCORES, AND PROBABILITY VALUES OF THE MEAN DIFFERENCES BETWEEN THE EXPERIMENTAL AND CONTROL GROUPS ON THE INITIAL SCORES OF THE SRA ACHIEVEMENT SERIES

SRA	Group	Fall Mean	Fall Deviation	t	P
Reference	**Exp.**	**101.60**	**22.5**	**.99**	**.30**
	Cont.	**98.45**	**21.8**		
Charts	**Exp.**	**104.00**	**20.7**	**3.06**	**.002**
	Cont.	**94.67**	**21.8**		
Reading Comp	**Exp.**	**95.26**	**18.8**	**2.17**	**.03**
	Cont.	**88.78**	**22.7**		
Vocabulary	**Exp.**	**100.14**	**18.9**	**1.43**	**.15**
	Cont.	**96.18**	**19.6**		
Language Arts Capitalization Punctuation	**Exp.**	**96.75**	**18.8**	**1.40**	**.16**
	Cont.	**91.73**	**26.5**		
Grammar Usage	**Exp.**	**89.74**	**23.2**	**.31**	**.76**
	Cont.	**88.68**	**23.8**		
Spelling	**Exp.**	**92.83**	**21.1**	**.45**	**.64**
	Cont.	**91.49**	**20.6**		
Arithmetic Reasoning	**Exp.**	**91.44**	**18.5**	**2.71**	**.006**
	Cont.	**84.40**	**17.7**		
Arithmetic Concept	**Exp.**	**95.99**	**20.3**	**1.83**	**.07**
	Cont.	**90.77**	**19.2**		
Arithmetic Composite	**Exp.**	**91.47**	**19.9**	**2.37**	**.018**
	Cont.	**84.70**	**19.8**		
Composite	**Exp.**	**95.98**	**16.0**	**2.08**	**.04**
	Cont.	**91.00**	**17.3**		

Table III shows that the experimental group scored significantly higher than the control group in five areas and on the composite score: Charts at the .002 level of confidence, Reading Comprehension at the .03 level, Arithmetic Reasoning at the .006 level, Arithmetic Concepts at the .07 level, Arithmetic Composite Score at the .018 level and the SRA Composite Score at the .04 level of confidence.

Since significant differences were found on the initial scores of both the Mooney Problem Check List and the SRA Achievement Series in several areas, the investigators rejected the "t" test for significance and used in its stead an analysis of covariance which compensated for the initial differences between groups. Tables IV through XV have presented comparisons of the change between the experimental and the control group on the Mooney, H.S.P.Q., and the SRA structured to show the test, sum of squares, degrees of freedom, mean squares, "f" score, and probability values of the change based on adjusted spring means. For each tabular presentation which has employed an analysis of covariance, a corresponding table has been placed in Appendix A (Tables XVIII-XXIX) which has identified the test, group, fall and spring means, and the adjusted mean.

An analysis of covariance for the Mooney Problem Check List has been presented in Table IV. The F column indicates the significance of the change between the experimental and control and the P column indicates the percentage value of the change. Thus, a P value of .01 indicates that such a change would occur by change no more than one in one hundred cases. P values which have not achieved significance have been reported as "ns" (not significant).

TABLE IV

ANALYSIS OF COVARIANCE FOR THE MOONEY PROBLEM CHECK LIST (EXPERIMENTAL AND CONTROL)

Area No.	Mooney Area	Groups	Sum of Squares	df	Mean Square	F	P
I	HPD	Between	.04	1	.04	.00	ns
		Within	11828	191	61.93		
II	SCH	Between	39.94	1	39.94	.63	ns
		Within	12210	191	63.83		
III	HF	Between	17.85	1	17.85	.40	ns
		Within	8669	191	45.39		
IV	MWF	Between	463.34	1	463.34	6.50	.02*
		Within	13626	191	71.34		
V	BG	Between	85.77	1	85.77	1.23	ns
		Within	13324	191	69.76		
VI	PG	Between	40.23	1	40.23	.60	ns
		Within	12731	191	66.65		
VII	SC	Between	.34	1	.34	.01	ns
		Within	13971	191	73.15		
VIII	Total	Between	10.45	1	10.45	.14	ns
		Within	13945	191	73.01		

*Indicated greater problem reduction by control group.

As indicated in Table IV, significant change between the experimental and the control groups occurred only in Area IV, Money, Work, and the Future. In this area the control group reduced their reported problems significantly (.015 level of confidence) more than did the experimental group.

It was initially hypothesized that the experimental group would experience a significant reduction of problems as a result of bibliotherapy. Such a change was not evident in an examination of the total groups as reported in Table IV. In an effort to determine whether bibliotherapy was more effective with high problem perceivers than with low problem perceivers, comparisons of the experimental and control groups scores on the Mooney were made by quartiles. Tables V, VI, and VII present an analysis of covariance of the experimental and control groups by the first quartile, second and third quartiles, and the fourth quartile scores on the Mooney Problem Check List.

TABLE V

ANALYSIS OF COVARIANCE FOR THE MOONEY PROBLEM CHECK LIST
FIRST QUARTILE
(EXPERIMENTAL AND CONTROL)

Area No.	Mooney Area	Groups	Sum of Squares	df	Mean Squares	F	P
I	HPD	Between	33.51	1	33.51	.51	ns
		Within	2998	46	65.17		
II	SCH	Between	54.33	1	54.33	.90	ns
		Within	2807	46	61.01		
III	HF	Between	164.43	1	164.43	2.98	.10
		Within	2538	46	55.18		
IV	MWF	Between	490.50	1	490.50	6.93	.015*
		Within	3250	46	70.78		
V	BG	Between	341.56	1	341.56	4.18	.05*
		Within	3758	46	81.70		
VI	PG	Between	175.78	1	175.78	2.59	.10
		Within	3122	46	67.87		
VII	SC	Between	324.81	1	324.81	3.50	.08*
		Witin	4266	46	92.73		
VIII	Total	Between	490.60	1	496.60	5.79	.02*
		Within	3898	46	84.73		

*Indicated greater problem reduction by control group.

TABLE VI

ANALYSIS OF COVARIANCE FOR THE MOONEY PROBLEM CHECK LIST SECOND AND THIRD QUARTILES (EXPERIMENTAL AND CONTROL)

Area No.	Mooney Area	Group	Sum of Squares	df	Mean Square	F	P
I	HPD	Between	3.90	1	3.90	.05	ns
		Within	6880	93	73.98		
II	SCH	Between	29.08	1	29.08	.43	ns
		Within	6275	93	67.48		
III	HF	Between	48.96	1	48.96	1.29	ns
		Within	3520	93	37.85		
IV	MWF	Between	89.62	1	89.62	1.03	ns
		Within	8103	93	87.13		
V	BG	Between	398.37	1	398.37	5.69	.02
		Within	6512	93	70.02		
VI	PG	Between	155.87	1	155.87	2.21	.10
		Within	6548	93	70.41		
VII	SC	Between	58.34	1	58.34	.90	ns
		Within	6030	93	64.84		
VIII	Total	Between	166.44	1	166.44	2.69	.10
		Within	5752	93	61.85		

TABLE VII

ANALYSIS OF COVARIANCE FOR THE MOONEY PROBLEM CHECK LIST FOURTH QUARTILE (EXPERIMENTAL AND CONTROL)

Area No.	Mooney Area	Group	Sum of Squares	df	Mean Square	F	P
I	HPD	Between	12.78	1	12.78	.33	ns
		Within	1766	46	38.40		
II	SCH	Between	50.21	1	50.21	.87	ns
		Within	2647	46	57.54		
III	HF	Between	64.71	1	64.71	1.31	ns
		Within	2277	46	49.49		
IV	MWF	Between	76.33	1	76.33	2.09	ns
		Within	1680	46	36.52		
V	BG	Between	55.87	1	55.87	1.37	ns
		Within	1875	46	40.75		
VI	PG	Between	9.16	1	9.16	.17	ns
		Within	2493	46	54.20		
VII	SC	Between	8.26	1	8.26	.13	ns
		Within	2831	46	61.54		
VIII	Total	Between	16.72	1	16.72	.23	ns
		Within	3322	46	72.23		

As indicated in Table V, problem reduction favored the experimental group in only two areas: Area III, Home and Family; and Area VI, Problems with People in General, both of which approached significance at the .10 level. Significant problem reduction in favor of the control group occurred in Areas IV, Money, Work, and the Future at the .015 level; V, Boy-Girl Relations at the .05 level; VII, Self-centered Problems at the .08 level; and VIII, the composite number of problems reduced at the .02 level of confidence.

Problem reduction within the second and third quartile, or the mid-fifty per cent, favored the experimental group as indicated in Table VI in Areas V, Boy-Girl Relations at the .02 level; VI, Problems with People in General at less than the .10 level; and VIII, the composite or total number of problems reduced at less than the .10 level.

No significant differences appeared between the experimental and control groups when the fourth or lower quartile was examined.

The High School Personality Questionnaire was used to determine the degree of change between the experimental and control groups in personality patterns. A description of the fourteen personality factors measured has been presented in Figure I. For each of the following four tables which have presented analyses of covariance for the H.S.P.Q., corresponding tables which describe the group, fall and spring means, and the adjusted spring mean can be found in Appendix A. Table VIII has presented an analysis of covariance for the H.S.P.Q. and the significance of change between the experimental and control groups.

TABLE VIII

ANALYSIS OF COVARIANCE FOR THE HIGH SCHOOL PERSONALITY QUESTIONNAIRE (EXPERIMENTAL AND CONTROL)

Personality Factor	Group	Sum of Squares	df	Mean Square	F	P
A	Between	7.54	1	7.54	2.21	ns
	Within	653	191	3.42		
B	Between	.58	1	.58	.15	ns
	Within	717	191	3.75		
C	Between	.00	1	.00	.00	ns
	Within	734	191	3.84		
D	Between	13.15	1	13.15	3.33	.08
	Within	754	191	3.95		
E	Between	.08	1	.08	.03	ns
	Within	620	191	3.25		
F	Between	10.34	1	10.34	3.23	.08
	Within	612	191	3.20		
G	Between	2.82	1	2.82	.83	ns
	Within	610	191	3.19		
H	Between	2.29	1	2.29	.70	ns
	Within	627	191	3.28		
I	Between	.03	1	.03	.01	ns
	Within	816	191	4.27		
J	Between	13.14	1	13.14	3.50	.07
	Within	717	191	3.7[illegible]		
O	Between	5.70	1	5.7[illegible]	1.57	ns
	Within	694	191	3.64		
Q_2	Between	.01	1	.01	.00	ns
	Within	717	191	3.75		
Q_3	Between	3.67	1	3.67	1.20	ns
	Within	585	191	3.06		
Q_4	Between	.00	1	.00	.16	ns
	Within	.06	191	.00		

Although Table VIII revealed no highly significant change between the experimental and the control group, change approaching significance at less than the .10 level was observed in three areas: D, F, and J. In Area D, which measures Phlegmatic Temperament versus Excitability, the experimental group moved toward the high score description (excitability) in a change significant at the .08 level of confidence. The H.S.P.Q. Handbook describes the high score description or D+ description as one in which the individual reports that he is a restless sleeper, easily distracted from work by noise or intrinsic difficulty, is hurt and angry if not given important positions or whenever he is restrained or punished. The high scoring D individual, though likeable and affectionate in quieter moods, is apt to be regarded as a considerable nuisance in restrictive situations, since he is likely to be impulsive.

Personality Factor F, Desurgency versus Surgency, again showed the experimental group moving toward the high score or F+ description significant at the .08 level. In essence, the experimental group became more talkative, cheerful, serene, happy-go-lucky, frank, expressive, reflective, of the group, quick and alert.

Personality Factor J, Group Action versus Individualism, indicated that the experimental group moved toward the low score description while control groups made a slight move toward the high score description. The change between the groups was significant at the .07 level. The H.S.P.Q. Handbook reports that the J+ (high score description) individual prefers to do things on his own, is physically and intellectually fastidious, thinks over his mistakes and how to avoid them, tends not to forget if he is unfairly treated, has private views differing from the group, but prefers to keep in the background and avoid argument, knows he has fewer friends, and generally tends to be unpopular with other students. The J- individual tends to go with the group, likes attention, sinks personality into group enterprise, is vigorous, and accepts common standards.

Tables V, VI, and VII examined the change between the experimental and control group on the Mooney Problem Check List by quartiles to determine whether bibliotherapy was more or less effective with the first quartile, or high problem perceivers, than with the second, third, and fourth quartiles, or lower problem perceivers. Since some significant changes appeared, it was decided to make a similar analysis of the High School Personality Questionnaire by using the same quartile groupings which were established on the Mooney. Table IX, for example, presents an analysis of covariance for the H.S.P.Q. using the first quartile of problem perceivers as selected from the Mooney Problem Check List. Table X presents the analysis of covariance for the second and third quartile, or middle fifty per cent of problem perceivers, and Table XI presents the analysis of covariance for the fourth quartile or low problem perceivers as indicated by the Mooney.

TABLE IX

ANALYSIS OF COVARIANCE FOR THE HIGH SCHOOL PERSONALITY QUESTIONNAIRE
FIRST QUARTILE
(EXPERIMENTAL AND CONTROL)

Personality Factor	Group	Sum of Squares	df	Mean Square	F	P
A	Between	1.38	1	1.38	.40	ns
	Within	154	45	3.43		
B	Between	.14	1	.14	.03	ns
	Within	208	45	4.62		
C	Between	4.61	1	4.61	1.04	ns
	Within	199	45	4.43		
D	Between	22.73	1	22.73	6.26	.015
	Within	163	45	3.63		
E	Between	.08	1	.08	.03	ns
	Within	126	45	2.80		
F	Between	6.37	1	6.37	2.88	.10
	Within	100	45	2.21		
G	Between	10.42	1	10.42	3.24	.08
	Within	145	45	3.22		
H	Between	.11	1	.11	.03	ns
	Within	166	45	3.68		
I	Between	.01	1	.01	.00	ns
	Within	199	45	4.42		
J	Between	.50	1	.50	.11	ns
	Within	208	45	4.62		
O	Between	8.64	1	8.64	2.77	ns
	Within	140	45	3.12		
Q_2	Between	.07	1	.07	.02	ns
	Within	140	45	3.11		
Q_3	Between	.00	1	.00	.00	ns
	Within	127	45	2.82		
Q_4	Between	.01	1	.01	.00	ns
	Within	151	45	3.36		

TABLE X

ANALYSIS OF COVARIANCE FOR THE HIGH SCHOOL PERSONALITY QUESTIONNAIRE SECOND AND THIRD QUARTILES (EXPERIMENTAL AND CONTROL)

Personality Factor	Group	Sum of Squares	df	Mean Square	F	P
A	Between	1.30	1	1.30	.43	ns
	Within	282	92	3.06		
B	Between	3.77	1	3.77	.99	ns
	Within	350	92	3.80		
C	Between	1.52	1	1.52	.15	ns
	Within	317	92	3.45		
D	Between	.05	1	.05	.02	ns
	Within	309	92	3.37		
E	Between	.47	1	.47	.13	ns
	Within	318	92	3.46		
F	Between	1.90	1	1.90	.55	ns
	Within	317	92	3.45		
G	Between	.01	1	.01	.00	ns
	Within	278	92	3.03		
H	Between	1.07	1	1.07	.35	ns
	Within	278	92	3.03		
I	Between	.97	1	.97	.23	ns
	Within	386	92	4.19		
J	Between	4.43	1	4.43	1.32	ns
	Within	310	92	3.37		
O	Between	4.18	1	4.18	1.42	ns
	Within	272	92	2.95		
Q_2	Between	4.02	1	4.02	1.07	ns
	Within	344	92	3.74		
Q_3	Between	.40	1	.40	.13	ns
	Within	288	92	3.13		
Q_4	Between	1.69	1	1.69	.65	ns
	Within	238	92	2.59		

TABLE XI

ANALYSIS OF COVARIANCE FOR THE HIGH SCHOOL PERSONALITY QUESTIONNAIRE
FOURTH QUARTILE
(EXPERIMENTAL AND CONTROL)

Personality Factor	Group	Sum of Squares	df	Mean Square	F	P
A	Between	.94	1	.94	.24	ns
	Within	170	46	3.88		
B	Between	.35	1	.35	.11	ns
	Within	152	46	3.31		
C	Between	.52	1	.52	.19	ns
	Within	124	46	2.70		
D	Between	.04	1	.04	.01	ns
	Within	205	46	4.45		
E	Between	8.04	1	8.04	2.85	.10
	Within	130	46	2.82		
F	Between	.00	1	.00	.00	ns
	Within	180	46	3.91		
G	Between	2.35	1	2.35	.71	ns
	Within	152	46	3.31		
H	Between	2.43	1	2.43	.89	ns
	Within	126	46	2.74		
I	Between	.00	1	.00	.00	ns
	Within	209	46	4.54		
J	Between	7.89	1	7.89	1.95	ns
	Within	186	46	4.05		
O	Between	4.01	1	4.01	.94	ns
	Within	196	46	4.26		
Q_2	Between	7.81	1	7.81	2.00	ns
	Within	179	46	3.90		
Q_3	Between	12.31	1	12.31	3.97	.06
	Within	143	46	3.10		
Q_4	Between	.00	1	.00	.04	ns
	Within	.02	46	.00		

Table IX revealed one highly significant change and two changes which approached significance on the personality factors. The significant change occurred on personality factor D, Phlegmatic Temperament versus Excitability, which was significant at the .015 level of confidence. Again, as in Table VIII, the experimental group moved toward the high-scale description. The three personality factors on which change approached significance at the .10 level or less were factors F, G, and O. Factor F again showed that the experimental group moved to the high-score description (surgency) while the control groups moved toward the low-score description (desurgency). The change was significant at the .10 level of confidence. (See the D and F score descriptions following Table VIII.) On factor G, Lack of Acceptance of Group Moral Standards versus Super Ego Strength, both the experimental and the control groups moved toward the low-score description. The experimental group, however, moved farther in that direction, significant at the .08 level of confidence. The low-score description implies characteristics of quitting, fickleness, frivolousness, being demanding, impatience, relaxedness, indolence, undependability, delinquency, disregard of obligations to people. The high-score description suggests the student to be persevering, determined, responsible, emotionally mature, consistently ordered, conscientious, and attentive to people and rules.

Table X showed no significant differences between the experimental and the control group in the second and third quartiles of problem perceivers on the analysis of covariance for the H.S.P.Q.

Table XI showed no significant differences. Two factors approached significance at the .10 level or less. Factor E, Submissiveness versus Dominance, indicated that the experimental group moved toward the low-score description while the control group moved slightly toward the high-score description. Factor Q_3, Poor Self-Sentiment versus High Self-Sentiment, showed both the experimental and control groups moved toward the low-score description with the experimental group showing the greatest movement in that direction, significant at the .06 level of confidence.

The Science Research Associates Achievement Series was used to assess changes in achievement between the experimental and control groups. The SRA tests achievement in work-study skills; reading comprehension and vocabulary; capitalization, punctuation, and spelling; arithmetic reasoning, concepts, and comprehension; and a composite achievement score. Table XII has presented an analysis of covariance for the SRA Achievement Series and the significance of changes between the experimental and control group.

TABLE XII

ANALYSIS OF COVARIANCE FOR THE SRA ACHIEVEMENT SERIES (EXPERIMENTAL AND CONTROL)

SRA Areas	Group	Sum of Squares	df	Mean Square	F	P
Reference	Between	1143.16	1	1143.16	4.79	.03*
	Within	45649	191	238.73		
Charts	Between	1.68	1	1.68	.01	ns
	Within	54244	191	283.85		
Reading Comp	Between	.11	1	.11	.00	ns
	Within	40874	191	213.78		
Vocabulary	Between	30.80	1	30.80	.18	ns
	Within	32470	191	170.39		
Language Arts Capitalization Punctuation	Between	26.94	1	26.94	.09	ns
	Within	58446	191	305.54		
Grammar Usage	Between	752.06	1	752.06	2.26	ns
	Within	63412	191	332.42		
Spelling	Between	844.26	1	844.26	5.21	.025*
	Within	30942	191	162.00		
Arithmetic Reasoning	Between	25.54	1	25.54	.09	ns
	Within	49660	191	259.96		
Arithmetic Concepts	Between	70.36	1	70.36	.36	ns
	Within	37436	191	195.52		
Arithmetic Composite	Between	3066.23	1	3066.23	13.07	.001*
	Within	44885	191	234.64		
Composite	Between	511.41	1	511.41	8.62	.001*
	Within	11269	191	59.34		

*Indicates gain by the control group.

Significant gain by the control group in three areas and the composite score was reported in Table XII. In the use of reference skills, the control group gained a higher achievement score significant at the .03 level of confidence; in spelling at the .025 level, in arithmetic at the .001 level, and on the composite achievement score at the .001 level. In no achievement area did the experimental group score significantly higher than did the control group.

Again it was decided to analyze the SRA Achievement Series by the same quartile groupings which were used on the Mooney and the H.S.P.Q. Table XIII presents an analysis of covariance for the SRA Achievement Series, using the first quartile of problem perceivers as selected from the Mooney Problem Check List. Table XIV presents the analysis of covariance for the second and third quartile, and Table XV presents the analysis of covariance for the fourth quartile or low problem perceivers.

TABLE XIII

ANALYSIS OF COVARIANCE FOR THE SRA ACHIEVEMENT SERIES FIRST QUARTILE (EXPERIMENTAL AND CONTROL)

SRA Areas	Group	Sum of Squares	df	Mean Square	F	P
Reference	Between	315.68	1	315.68	1.20	ns
	Within	11796	45	262.14		
Charts	Between	22.22	1	22.22	.07	ns
	Within	15119	45	335.98		
Reading Comp	Between	15.94	1	15.94	.07	ns
	Within	10185	45	226.33		
Vocabulary	Between	70.07	1	70.07	.33	ns
	Within	9552	45	212.27		
Language Arts Capitalization Punctuation	Between	27.44	1	27.44	.08	ns
	Within	14998	45	333.29		
Grammar Usage	Between	221.02	1	221.02	.08	ns
	Within	10918	45	246.63		
Spelling	Between	386.10	1	386.10	2.29	ns
	Within	7603	45	168.96		
Arithmetic Reasoning	Between	330.20	1	330.20	1.41	ns
	Within	10538	45	234.17		
Arithmetic Concepts	Between	1093.75	1	1093.75	4.92	.035*
	Within	9997	45	222.15		
Arithmetic Composite	Between	1141.02	1	1141.02	4.02	.05*
	Within	12784	45	284.09		
Composite	Between	292.44	1	292.44	4.49	.04*
	Within	2930	45	65.11		

*Indicates gain by the control group.

TABLE XIV

ANALYSIS OF COVARIANCE FOR THE SRA ACHIEVEMENT SERIES SECOND AND THIRD QUARTILES (EXPERIMENTAL AND CONTROL)

SRA Areas	Group	Sum of Squares	df	Mean Square	F	P
Reference	Between	65.83	1	65.83	.23	ns
	Within	26399	92	286.94		
Charts	Between	4.80	1	4.80	.02	ns
	Within	26923	92	292.65		
Reading Comp	Between	251.48	1	251.48	1.06	ns
	Within	21908	92	238.13		
Vocabulary	Between	32.67	1	32.67	.26	ns
	Within	11692	92	127.08		
Language Arts	Between	13.92	1	13.92	.05	ns
Capitalization	Within	27906	92	303.32		
Punctuation						
Grammar Usage	Between	1063.17	1	1063.17	3.11	.09*
	Within	29458	92	342.10		
Spelling	Between	346.08	1	346.08	2.21	ns
	Within	14403	92	156.55		
Arithmetic	Between	43.27	1	43.27	.14	ns
Reasoning	Within	27946	92	303.76		
Arithmetic	Between	1.45	1	1.45	.01	ns
Concepts	Within	17131	92	186.21		
Arithmetic	Between	1900.26	1	1900.26	7.17	.008*
Composite	Within	24375	92	264.95		
Composite	Between	188.00	1	188.00	3.17	.09*

*Indicates gain by the control group.

TABLE XV

ANALYSIS OF COVARIANCE FOR THE SRA ACHIEVEMENT SERIES FOURTH QUARTILE (EXPERIMENTAL AND CONTROL)

SRA Areas	Group	Sum of Squares	df	Mean Square	F	P
Reference	Between	779.74	1	779.74	4.25	.04*
	Within	8418	46	183.38		
Charts	Between	.11	1	.11	.00	ns
	Within	10942	46	237.01		
Reading Comp	Between	103.10	1	103.10	.65	ns
	Within	7314	46	159.39		
Vocabulary	Between	68.24	1	68.24	.29	ns
	Within	10810	46	234.99		
Language Arts Capitalization Punctuation	Between	331.72	1	331.72	1.10	ns
	Within	13892	46	301.90		
Grammar Usage	Between	103.38	1	103.38	.26	ns
	Within	17986	46	390.57		
Spelling	Between	203.74	1	203.74	1.10	ns
	Within	8510	46	185.34		
Arithmetic Reasoning	Between	24.58	1	24.58	.12	ns
	Within	9246	46	201.24		
Arithmetic Concepts	Between	387.57	1	387.57	2.21	ns
	Within	8050	46	175.39		
Arithmetic Composite	Between	81.63	1	81.63	.53	ns
	Within	7084	46	154.33		
Composite	Between	43.09	1	43.09	.70	ns
	Within	2852	46	61.88		

*Indicates gain by the control group.

In the analysis of the first quartile of problem perceivers identified by the Mooney, Table XIII revealed significant change by the control group on the SRA in three areas: arithmetic concepts, arithmetic reasoning, and the composite achievement score. Each of these significances was at the .05 level of confidence or less. Table XIV revealed no significant differences although grammar usage, arithmetic comprehension, and the composite achievement score approached at the .08 and .09 levels respectively with the gain again in favor of the control group.

Table XV which analyzed the fourth quartile, or low problem perceivers, revealed one significant change between the experimental and control group. This change appeared on reference skills in favor of the control group at the .04 level of confidence. In all quartile comparisons, changes which were significant or approached significance were all in favor of the control group.

The Haggerty-Olson-Wickman Behavior Rating Schedule was used in an attempt to assess change between the experimental and control groups in terms of behavioral problems, such as overt infractions of school policies and regulations, and ethical character, as reflected in conduct with peer groups. The Haggerty-Olson-Wickman is composed of two schedules: A and B. Schedule A is the Behavior Problem Record and required the teacher to estimate the number of times the behavior problem occurred during the year from the following list of problems: Disinterest in School Work, Cheating, Unnecessary Tardiness, Lying, Defiance to Discipline, Marked Overactivity, Unpopularity with Children, Temper Outbursts, Bullying, Speech Difficulties, Imaginative Lying, Sex Offenses, Stealing, Truancy, Obscene Notes, Talk, or Pictures. Schedule B required the teachers to make value judgments about the intellectual, physical, social, and emotional characteristics of the students. Table XVI reports Truancy from Schedule A and the composite Behavior Problem Record of Schedule A as well as the complete reporting of Schedule B.

In Table XVI the teachers of the experimental groups reported considerably more behavioral problems than did the teachers of the control groups. This difference was significant at the .006 level of confidence. The investigators considered this difference spuriously high and attributed it to the Hawthorne Effect. A more lengthy discussion of this has been included in Part Three, Summary, Findings, and Conclusions. No other significant findings were revealed by Table XVI.

TABLE XVI

THE GROUP MEAN, STANDARD DEVIATION, "t" SCORE, AND PROBABILITY VALUES OF THE HAGGERTY-OLSON-WICKMAN BEHAVIOR RATING SCHEDULES

Schedule	Area	Group	Mean	SD	t	P
A	Truancy	Exp.	.62	3.20	.11	.92
		Cont.	1.19	4.29		
A	Behavior Problem Record	Exp.	16.91	6.78	2.76	.01
		Cont.	9.67	4.32		
B	Intellectual	Exp.	15.82	4.72	.99	.32
		Cont.	16.60	6.27		
B	Physical	Exp.	12.79	3.12	.46	.64
		Cont.	12.59	2.66		
B	Social	Exp.	21.20	5.71	.91	.36
		Cont.	20.43	6.09		
B	Emotional	Exp.	18.62	5.15	1.27	.20
		Cont.	17.57	6.30		
B	Total	Exp.	68.64	15.62	.68	.50
		Cont.	67.04	17.18		

PART THREE

SUMMARY, FINDINGS, AND CONCLUSIONS

I. Summary.

The purpose of this study was to determine whether there was a significant difference in changes of behavioral patterns in the areas of (1) personality, (2) problem reduction, (3) achievement, (4) truancy, and (5) disciplinary problems between students who received bibliotherapy and students who did not receive bibliotherapy.

The study was based on the assumptions that (1) students have problems of a developmental nature which may affect their social and academic behavior, (2) that these developmental problems can be identified through diagnostic procedures available to the classroom teacher, (3) that the development of insights and understandings into these problems by the individual are basic to their solution, and (4) that these insights and understandings can be accomplished to a significant degree through a program of selected readings which cause an identification of the reader with the character.

Eight classes of eighth and ninth grade students were selected from two junior high schools in the Shawnee Mission Public School System, Shawnee Mission, Kansas. These classes were equated as nearly as possible; and four were selected by a random method to serve as the control group, and the remaining four classes served as the experimental group. The teachers of both the experimental and control groups were those teachers who regularly served as the teachers of the classes selected.

The teachers of the four experimental classes were brought to the campus of the Kansas State Teachers College for training in the techniques of bibliotherapy by the investigators in August, 1964. The teachers were instructed in methods of conducting personal interviews, using sociometric techniques to disclose peer evaluation, the keeping of anecdotal records and personal observation. They were familiarized with an extensive bibliography of adolescent books which had been compiled and categorized in terms of possible therapeutic value.

In September, 1964, both the experimental and the control groups were administered the *Mooney Problem Check List*, the *High School Personality Questionnaire*, and the *Science Research Associates Achievement Series*. During the school year the experimental groups were interviewed by the teachers, guidance counselors, and investigators in efforts to identify the students' problems of a personal and social nature. When agreement was reached that the student had a problem which was identified, bibliotherapy was applied which consisted of the selection and recommendation of books of possible therapeutic value for the specific problem of the student. In May, 1965, the *Mooney Problem Check List* was readministered along with alternate forms of the *High School Personality Questionnaire* and the *Science Research Associates Achievement Series*. The *Haggerty-Olson-Wickman Behavior Rating Schedule* was administered only in May since it required a knowledge of the student which teachers did not possess in September.

Analysis of covariance was employed as the major statistical technique to present comparisons of data. Changes at the .05 level of confidence or lower were considered significant.

II. *Findings*.

The data revealed several significant differences between the experimental and control groups at the conclusion of the experimental program employing bibliotherapy. These findings have been reported with reference to the original hypothesis or assumption and the instrument used to gather the data. The original hypothesis stated that there would be a significant difference in changes in the behavioral patterns between the students who received bibliotherapy and those students who did not receive bibliotherapy in (1) problem reduction, (2) personality change, (3) achievement, (4) truancy, and (5) disciplinary problems.

A. Reduction of Problems

The Mooney Problem Check List was used to assess problem reduction. The following findings relate to problem reduction as indicated by the Mooney:

1. The mean total number of problems reported per student of the experimental group was 34.5 in September and 30.8 in May. The control group reported 27.0 and 26.3 respectively for a .7 of one problem reduction. Despite a 3.7 mean problem reduction for the experimental group, the difference did not prove to be statistically significant.

2. In the area of Money, Work, and the Future, the experimental group indicated an increase in problems while the control group indicated a decrease in problems. This difference was statistically significant at the .015 level of confidence.

3. When the first quartile (High Problem Perceivers) from the experimental and control groups were compared, it was found that the control group reduced their total problems significantly more than the experimental group. The reduction was significant at the .02 level of confidence.

4. A comparison of the second and third quartiles, or mid fifty per cent, revealed a reduction in favor of the experimental group which approached significance at the .10 level of confidence.

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5. A comparison of the fourth quartile, or students who initially perceived few problems, revealed no significant differences between the experimental and control group.

B. Personality Change

Personality change was assessed through the of the High School Personality Questionnaire.

1. Although there were no initial significant differences between the experimental and control groups, the post-test revealed changes on three personality factors which approached significance:

(a) On Factor D, Phlegmatic versus Excitability, the experimental group moved toward the high-score description of excitability significant at the .08 level of confidence.

(b) On Factor F, Desurgency versus Surgency, the experimental group moved toward the high-score description of talkative, cheerful, serene, frank, expressive, reflective of the group, quick, and alert. The change was significant at the .08 level of confidence.

(c) On Factor J, Group Action versus Individualism, the experimental group moved toward the low-score description of tending to go with the group, liking attention, sinking personality into group enterprise, being vigorous, and accepting common standards. The change was significant at the .07 level of confidence.

2. A comparison of the first quartile (High Problem Perceivers), experimental and control, on the H.S.P.Q. revealed change in three factors:

(a) On Factor D, Phlegmatic versus Excitability, the experimental group again moved toward the high-score description of excitability. The change was significant at the .015 level of confidence.

(b) On Factor F, Desurgency versus Surgency, the experimental group again moved toward the high-score description with change approaching significance at the .10 level of confidence.

(c) On Factor G, Weaker Super Ego Strength versus Stronger Super Ego Strength, both the experimental and the control groups moved toward the low-score description with the experimental group making the most change significant at the .08 level of confidence.

3. No significant personality changes were found when the second and third quartile of problem perdeivers from the two groups were compared on the H.S.P.Q.

4. A comparison of the fourth quartile of problem perceivers on the H.S.P.Q. revealed two changes approaching significance.

(a) On Factor E, Submissiveness versus Dominance, the experimental group moved toward the low-score description while the control group moved slightly toward the high-score description. The change was significant at the .10 level of confidence.

(b) On Factor Q_3, Poor Self-Sentiment versus High Self-Sentiment, both groups moved toward the low-score description with the experimental group showing the greatest movement. The difference approached significance at the .06 level.

C. Achievement

The Science Research Associates Achievement Series was used to assess change in achievement.

1. The control group achieved significantly higher on the composite achievement score of the SRA. The difference was significant over the gain of the experimental group at the .001 level of confidence.

2. When the first quartile of problem perceivers were compared on the SRA, the achievement of the control group on the composite achievement score was significantly higher at the .04 level of confidence.

3. A comparison of the second and third quartiles of problem perceivers revealed a composite achievement gain in favor of the control group which approached significance at the .09 level of confidence.

4. No significant differences were found when the fourth quartile of problem perceivers were compared on the SRA Achievement Series.

D. Truancy and Disciplinary Problems

Truancy and disciplinary problems were assessed through the use of the Haggerty-Olson-Wickman Behavior Rating Schedule.

1. No significant differences between the experimental and control groups in truancy were revealed.

2. No significant differences were revealed between the two groups with reference to the intellectual, physical, social, and emotional characteristics of the students.

3. The teachers of the experimental groups reported almost twice as many disciplinary problems as did the teachers of the control group. This difference was significant at the .006 level of confidence.*

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*The investigators are convinced that this difference was attributable to a built-in-bias in the research design and to the Hawthorne Effect in that the teachers of the experimental groups were acquainted with the instrument in September and informed that they would administer this instrument in May. The control group teachers were not acquainted with the instrument nor were they informed that the test would be administered. Therefore, the investigators believe that the teachers of the experimental groups were more aware of the disciplinary problems during the course of the year and that this finding should be disregarded.

III. Conclusions.

Under A, below, are the general conclusions relative to the acceptance or rejection of the initial hypothesis, which stated:

> There will be a significant difference in changes in the behavioral patterns between students who receive bibliotherapy and students who do not receive bibliotherapy. Measurable change will be evidenced in (1) personality, (2) reduction of problems, (3) achievement, (4) truancy, and (5) disciplinary problems.

The major conclusions follow the order of the hypothesis.

A. General Conclusions

1. Significant personality change was evidenced on the part of the experimental group. The change may generally be described as desirable; therefore, this part of the hypothesis was accepted.

2. Although measurable change in problem reduction was evidenced, the reduction was not statistically significant and the part of the hypothesis relating to problem reduction was rejected.

3. Significant change was evidenced in achievement between students who received bibliotherapy and those students who did not receive bibliotherapy. Although the relationship was inverse to that expected by the investigators, the hypothesis was accepted.

4. Data relative to truancy and disciplinary problems were gathered through the use of the Haggerty-Olson-Wickman Behavior Rating Schedule. Since the investigators felt that the application of the instrument was biased and subject to the Hawthorne Effect as previously described, no conclusions were drawn.

B. Related Conclusions

1. High problem perceivers tend to perceive more problems as a result of bibliotherapy.

2. The average student, or student who perceives what might be termed an average number of problems, tends to reduce his problems as a result of bibliotherapy.

3. Bibliotherapy tends to affect adversely the achievement of average and high problem perceivers, but does not affect the achievement of low problem perceivers.

IV. Recommendations for Further Study.

1. The investigators believe that the significantly higher achievement of the control group over the experimental group may be largely due to the fact that the experimental students were engaged in an extensive reading program which may have caused them to neglect other studies. This seems particularly evident in the fact that high problem perceivers experienced the greatest changes in personality patterns and the poorest achievement. The implication here is that the students were engrossed in books which spoke to their problems and needs. Low problem perceivers were permitted free reading programs which did not induce them the same level of involvement and consequent neglect of other school work.

2. Although high problem perceivers experienced some favorable personality change, they reported more problems at the conclusion of the experiment than were reported initially. Since an increased anxiety level was indicated, the investigators are inclined to believe that such anxiety is the first step toward insightful solutions to problems and that only a longitudinal study would reveal the full implications of bibliotherapy.

PART FOUR

SIDE STUDY

THE RELATIONSHIP BETWEEN PERCEIVED PROBLEMS OF ADOLESCENTS AND CERTAIN PERSONALITY FACTORS

I. Introduction.

The relationship between the perceived problems of adolescents and their achievement in school has been the subject of numerous studies. Milton (1963), Burgess (1956), Parks (1963), Sandford (1952), Porter (1964), and Taylor (1964) report that underachievers tend to have more personal problems, particularly those which originate in the home and family and school situation. Overachievers report considerably fewer problems. The relationship between personality and achievement has also been studies extensively. Symkal (1962), Gilmore (1952), Roberts (1962), Mikelson (1964), Dugan (1962), and Taylor (1964) found definite relationships between some factors of personality and achievement.

With the quantitative evidence to support the relationship between (1) problems and achievement and (2) personality and achievement, it would seem safe to assume a relationship between perceived problems of adolescents and certain personality factors. Statistical evidence in support of that assumption, however, has been elusive. This study has attempted to assess the relationship between perceived problems of adolescents and certain personality factors.

II. Sources of Data and Procedures.

In an effort to determine the relationship between perceived problems of adolescents and certain personality characteristics, 217 eighth and ninth grade students were given the Mooney Problem Check List and the Jr.-Sr. High School Personality Questionnaire (H.S.P.Q.) in September.

The data used in this investigation were derived from a more extensive research project designed to study the effects of bibliotherapy on behavioral patterns of adolescents and which was supported by the Cooperative Research Branch of the U. S. Office of Education. One of the basic assumptions of the project on bibliotherapy was that students have personal and social problems which affect their academic behavior and that if these problems could be alleviated through the application of bibliotherapy, a corresponding improvement in personality would be noted on the H.S.P.Q. In an effort to test the assumption, the 217 students in the study were asked to complete the Mooney Problem Check List and the Jr.-Sr. High School Personality Questionnaire. Coefficients of correlation were then computed between the seven areas and the composite score of the Mooney and the fourteen dimensions of the personality measured by the H.S.P.Q.

The Mooney Problem Check List, 1950 edition, is published by the Psychological Corporation, 304 East 45th Street, New York. The Junior High School Form contains 210 items; thirty in each of the following areas:

I. Health and Physical Development (HPD)
II. School (S)
III. Home and Family (HF)
IV. Money, Work, and the Future (MWF)
V. Boy-Girl Relations (BG)
VI. Relations to People in General (PG)
VII. Self-centered Concerns (SC)

The Mooney Problem Check List is designed to reflect the problems which a student perceives and is willing to express at a given time.

Although one may count the number of problems checked, the number does not necessarily reflect the intensities of the problems and is not a score in the usual sense of the term.

The Jr.-Sr. High School Personality Questionnaire (H.S.P.Q.) is published by the Institute for Personality and Ability Testing, 1602-04 Coronado Drive, Champaign, Illinois. The Second Edition, 1962 was used. The test measures a set of fourteen independent dimensions of personality which are described in Figure II.

Coefficients of correlation were computed between each of the seven problem areas and a composite or total number of problems checked on the Mooney and the fourteen personality dimensions or traits measured by the High School Personality Questionnaire. As indicated by Figure II, the H.S.P.Q. designates the trait by letter A, B, C, etc. and then describes the trait both by technical and popular titles. For example, Factor A is described: Schizothymia-versus-Cyclothymia (Stiff, Critical, Aloof-versus-Warm, Sociable). Factor A, as are the other thirteen factors, is scored with a standard ten score (sten). Sten scores five and six are considered average whereas a score from one to four would be a low-score description and scores from seven to ten are high-score descriptions. Low-score descriptions appear in Table XVII as negative correlations and high-score descriptions appear as positive correlations. Consequently, a low-score description of Factor A would indicate personality traits described as Schizothymia (Stiff, Critical, Aloof) and would appear as a negative correlation. The coefficients of correlation between problem areas indicated by the Mooney and personality factors identified by the H.S.P.Q. appear in Table XVII.

FIGURE II

TITLES AND SYMBOLS FOR DESIGNATING THE FOURTEEN DIMENSIONS

Trait Designation by Letter	LOW SCORE ON TRAIT - versus- HIGH SCORE ON TRAIT Technical Title (Popular Title in Parentheses)	Universal Index Number
A	Schizothymia-versus-Cyclothymia (Stiff, Critical, Aloof-versus-Warm, Sociable)	U.I.(L,Q)1
B	Low General Mental Capacity-versus-General Intelligence (Dull-versus-Bright)	U.I.(L,Q)2
C	Neurotic, Emotional Instability, or Ego Weakness-versus-Ego Strength (Emotional, Immature, Unstable-versus-Mature, Calm)	U.I.(L,Q)3
D	Phlegmatic Temperament-versus-Excitability (Stodgy-versus-Unrestrained)	U.I.(L,Q)4
E	Submissiveness-versus-Dominance (Mild-versus-Aggressiveness)	U.I.(L,Q)5
F	Desurgency-versus-Surgency (Sober, Serious-versus-Enthusiastic, Happy-go-lucky)	U.I.(L,Q)6
G	Lack of Acceptance of Group Moral Standards-versus-Super Ego Strength (Casual, Undependable-versus-Conscientious, Persistant)	U.I.(L,Q)7
H	Threctia-versus-Parmia (Shy, Threat-sensitive-versus-Adventurous, "Thickskinned")	U.I.(L,Q)8
I	Harria-versus-Premsia (Tough, Realistic-versus-Esthetically Sensitive)	U.I.(L,Q)9
J	Dynamic Simplicity-versus-Neurasthenic Self-critical Tendency (Liking Group Action-versus-Fastidiously Individualistic)	U.I.(L,Q)10
O	Confident Adequacy-versus-Guilt Proneness (Confident-versus-Insecure)	U.I.(L,Q)15
Q_2	Group Dependency-versus-Self-sufficiency (Group Dependent-versus-Individually Resourceful)	U.I.(Q)17
Q_3	Poor Self Sentiment Formation-versus-High Strength of Self Sentiment (Uncontrolled, Lax-versus-Controlled, Showing Will Power)	U.I.(Q)18
Q_4	Low Ergic Tension-versus-High Ergic Tension (Relaxed, Composed-versus-Tense, Excitable)	U.I.(Q)19

TABLE XVII

COEFFICIENTS OF CORRELATION* BETWEEN FACTORS OF THE MOONEY PROBLEM CHECK LIST AND THE FOURTEEN PERSONALITY FACTORS MEASURED BY THE H.S.P.Q.

FACTORS Low Score	H.S.P.Q.	High Score	Mooney	Health, Phys. Dev. (HPD)	School (S)	Home, Family (HF)	Money, Work Future (MWF)	Boy-Girl Relation	People in General	Self-cent. Concerned	Composite Total Problems
Stiff-Aloof	vs.	Warm-Sociable	A		-.14#						
Dull	vs.	Bright	B								
Immature-Unstable	vs.	Mature Calm	C		-.19	-.20	-.16	-.26	-.24	-.25	-.28
Phlegmatic	vs.	Unrestrained	D		.16		.14		.18	.25	.20
Submissive	vs.	Dominant-Agressive	E		.17	.17				.13	.13
Sober-Serious	vs.	Happy-Go-Lucky	F			.23	.16			.16	.14
Undependable	vs.	Conscientious	G		-.30	-.16	-.21		-.14	-.23	-.24
Shy	vs.	Adventurous	H		-.17			-.13	-.19	-.20	-.18
Tough	vs.	Sensitive	I								
Group-Minded	vs.	Individualistic	J		.18	.22	.19	.19	.33	.29	.30
Confident	vs.	Insecure	O		.18			.21	.19	.29	.21
Group Dependent	vs.	Individually Resourceful	Q_2								
Lax	vs.	Controlled	Q_3		-.29	-.20				-.26	-.22
Composed	vs.	Excitable	Q_4		.17		.17		.20	.28	.21

*Correlation must equal or exceed .138 to be significant at .05 level of confidence or .181 to be significant at .01 level of confidence.

#- Indicates negative correlation or correlation with low score description on H.S.P.Q. (See Figure II for complete description.)

The coefficients of correlation presented in Table XVII with 216 degrees of freedom must equal or exceed .138 to be considered significant at the .05 level of confidence and .181 to be significant at the .01 level. The table can best be read by beginning at the top with the seven areas of the Mooney and reading down the fourteen personality factors of the H.S.P.Q. For example, problems reported in the area of Health and Physical Development did not correlate significantly with any of the personality factors. Problems related to the school, however, correlated with factors A, C, D, E, F, G, H, J, O, Q_3, and Q_4. Since the negative sign indicates a low sten score on the H.S.P.Q. factors, the data imply that students who report more problems related to school tend toward personality traits of aloofness, immature and emotionally unstable, unrestrained, dominance, undependability, threat-sensitive, individualistic, insecure, less-controlled, and more excitable than the students who report fewer problems in this area.

The greater the number of problems of home and family reported by the student, the greater the likelihood that the student will exhibit immaturity, unrestrained, aggressive, individualistic, and uncontrolled. The relationship between the total number of problems perceived by the student and reported on the Mooney Problem Check List is statistically significant at the .05 level of confidence with H.S.P.Q. traits E and F, and at the .01 level with traits C, D, G, H, J, O, Q_3, and Q_4. No statistical significance was found between total problems and H.S.P.Q. traits A, B, I, and Q_2.

III. Summary and Conclusions.

The coefficients of correlation between the total number of problems checked on the Mooney Problem Check List and the High School Personality Questionnaire of 217 junior high school students, indicate a relationship significant at the .05 level of confidence between the perceived problems of adolescents and personality traits E and F, of the H.S.P.Q. Relationships significant at the .01 level were indicated between perceived problems and H.S.P.Q. traits C, D, G, H, J, O, Q_3, and Q_4. Summarily, total problems perceived relate significantly to ten of the fourteen dimensions of personality measured by the H.S.P.Q.

From an examination of the data presented in Table XVII it appears that students who report this greater number of perceived problems tend to possess personality traits described in Figure II by popular title: C - emotional, immature; D - unrestrained; E - aggressiveness; F - enthusiastic, happy-go-lucky; G - casual, undependable; H - shy, threat-sensitive; J - fastidiously individualistic; O - insecure; Q_3 - uncontrolled, lax; and Q_4 - tense, excitable. One may conclude from the data, therefore, that a significant relationship exists between perceived problems of adolescents and certain personality factors.

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APPENDIX A

TABLES OF ADJUSTED MEANS

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TABLE XVIII

THE FALL MEAN, SPRING MEAN, AND ADJUSTED SPRING MEAN MOONEY PROBLEM CHECK LIST (EXPERIMENTAL AND CONTROL)

No.	Mooney Area	Group	Fall Mean	Spring Mean	Adjusted Mean
I	HPD	Exp.	49.573*	50.456	50.624
		Cont.	50.066	50.789	50.590
II	SCH	Exp.	48.583	50.621	51.270
		Cont.	50.967	51.088	50.354
III	HF	Exp.	48.505	49.165	49.867
		Cont.	51.000	51.275	50.480
IV	MWF	Exp.	49.146	48.825	49.300
		Cont.	50.813	52.945	52.408
V	BG	Exp.	49.194	52.990	53.198
		Cont.	50.110	52.099	51.864
VI	PG	Exp.	48.456	51.039	51.929
		Cont.	51.615	52.011	51.004
VII	SC	Exp.	48.757	50.534	51.097
		Cont.	51.220	51.648	51.012
VIII	Total	Exp.	48.718	50.913	51.834
		Cont.	51.406	52.407	51.364

***Raw scores were standardized to permit use of analysis of covariance on all Mooney Problem Check List data presentations.**

TABLE XIX

THE FALL MEAN, SPRING MEAN, AND ADJUSTED SPRING MEAN OF THE FIRST QUARTILE OF THE MOONEY PROBLEM CHECK LIST (EXPERIMENTAL AND CONTROL)

No.	Mooney Area	Group	Fall Mean	Spring Mean	Adjusted Mean
I	HPD	Exp.	40.769	42.231	42.831
		Cont.	42.478	45.174	44.495
II	SCH	Exp.	38.308	42.500	43.402
		Cont.	44.261	46.652	45.632
III	HF	Exp.	37.346	40.923	41.774
		Cont.	42.478	46.695	45.734
IV	MWF	Exp.	38.962	39.577	40.407
		Cont.	41.522	47.783	46.844
V	BG	Exp.	40.846	43.692	43.554
		Cont.	40.043	48.695	48.852
VI	PG	Exp.	38.577	42.231	43.167
		Cont.	43.261	48.174	47.116
VII	SC	Exp.	37.654	43.077	43.359
		Cont.	40.870	49.000	48.681
VIII	Total	Exp.	35.231	38.385	38.669
		Cont.	39.957	45.870	45.549

TABLE XX

THE FALL MEAN, SPRING MEAN, AND ADJUSTED SPRING MEAN OF THE SECOND AND THIRD QUARTILES OF THE MOONEY PROBLEM CHECK LIST (EXPERIMENTAL AND CONTROL)

No.	Mooney Area	Group	Fall Mean	Spring Mean	Adjusted Mean
I	HPD	Exp.	50.118	51.353	51.398
		Cont.	50.267	51.044	50.994
II	SCH	Exp.	48.706	50.961	51.280
		Cont.	49.911	50.533	50.172
III	HF	Exp.	49.990	50.863	51.726
		Cont.	52.356	51.244	50.266
IV	MWF	Exp.	50.000	50.353	50.701
		Cont.	51.622	53.044	52.650
V	BG	Exp.	48.941	55.020	55.334
		Cont.	50.622	51.578	51.221
VI	PG	Exp.	48.196	51.725	52.664
		Cont.	52.133	51.067	50.003
VII	SC	Exp.	49.510	50.725	51.188
		Cont.	51.267	50.133	49.610
VIII	Total	Exp.	48.922	52.216	53.111
		Cont.	51.222	51.378	50.363

TABLE XXI

THE FALL MEAN, SPRING MEAN, AND ADJUSTED SPRING MEAN OF THE FOURTH QUARTILE OF THE MOONEY PROBLEM CHECK LIST (EXPERIMENTAL AND CONTROL)

No.	Mooney Area	Group	Fall Mean	Spring Mean	Adjusted Mean
I	HPD	Exp.	57.308	56.623	56.909
		Cont.	57.261	55.870	55.885
II	SCH	Exp.	58.615	58.077	58.343
		Cont.	59.739	56.609	56.308
III	HF	Exp.	57.731	54.077	53.855
		Cont.	56.870	55.913	56.164
IV	MWF	Exp.	57.654	55.077	55.233
		Cont.	58.522	57.913	57.738
V	BG	Exp.	58.038	58.307	58.478
		Cont.	59.174	56.522	56.330
VI	PG	Exp.	58.846	58.500	58.529
		Cont.	58.957	57.696	57.663
VII	SC	Exp.	58.385	57.615	57.851
		Cont.	61.478	57.261	56.994
VIII	Total	Exp.	61.808	60.885	61.473
		Cont.	63.217	60.957	60.291

TABLE XXII

THE FALL MEAN, SPRING MEAN, AND ADJUSTED SPRING MEAN OF THE HIGH SCHOOL PERSONALITY QUESTIONNAIRE (EXPERIMENTAL AND CONTROL)

HSPQ Factor	Group	Fall Mean	Spring Mean	Adjusted Mean
A	Exp.	5.767	5.262	5.258
	Cont.	5.747	5.648	5.653
B	Exp.	5.243	5.563	5.531
	Cont.	5.000	5.385	5.421
C	Exp.	5.573	5.534	5.518
	Cont.	5.484	5.495	5.513
D	Exp.	4.932	5.747	5.781
	Cont.	5.110	5.297	5.259
E	Exp.	5.816	5.476	5.457
	Cont.	5.550	5.396	5.416
F	Exp.	5.777	6.534	6.621
	Cont.	6.209	6.253	6.155
G	Exp.	5.835	5.175	5.103
	Cont.	5.473	5.264	5.345
H	Exp.	5.845	5.874	5.831
	Cont.	5.648	6.000	6.049
I	Exp.	5.447	5.767	5.769
	Cont.	5.462	5.747	5.745
J	Exp.	5.126	4.767	4.776
	Cont.	5.231	5.308	5.298
O	Exp.	5.146	5.320	5.306
	Cont.	5.011	4.945	4.962
Q_2	Exp.	4.961	4.786	4.775
	Cont.	4.879	4.780	4.793
Q_3	Exp.	5.155	5.563	5.583
	Cont.	5.253	5.330	5.307
Q_4	Exp.	5.243	5.699	5.745
	Cont.	5.516	5.692	5.639

TABLE XXIII

THE FALL MEAN, SPRING MEAN, AND ADJUSTED SPRING MEAN OF THE FIRST QUARTILE* HIGH SCHOOL PERSONALITY QUESTIONNAIRE (EXPERIMENTAL AND CONTROL)

HSPQ Factor	Group	Fall Mean	Spring Mean	Adjusted Mean
A	Exp.	5.154	5.038	5.214
	Cont.	6.130	5.783	5.584
B	Exp.	5.077	5.385	5.395
	Cont.	4.696	5.522	5.510
C	Exp.	4.462	5.192	5.523
	Cont.	5.391	5.217	4.844
D	Exp.	6.038	7.000	6.700
	Cont.	4.261	4.739	5.079
E	Exp.	5.885	5.308	5.041
	Cont.	5.739	4.652	4.953
F	Exp.	6.231	6.885	6.865
	Cont.	6.739	6.043	6.065
G	Exp.	4.923	4.192	4.464
	Cont.	5.783	5.738	5.476
H	Exp.	5.423	5.538	5.563
	Cont.	5.870	5.696	5.668
I	Exp.	5.692	6.038	5.904
	Cont.	5.304	5.783	5.934
J	Exp.	6.000	5.000	4.917
	Cont.	5.652	5.043	5.137
O	Exp.	5.615	6.154	5.900
	Cont.	4.913	4.696	4.982
Q_2	Exp.	4.962	5.115	5.023
	Cont.	5.174	5.000	5.105
Q_3	Exp.	4.192	4.808	5.129
	Cont.	5.521	5.478	5.115
Q_4	Exp.	5.846	6.154	5.725
	Cont.	5.130	5.217	5.702

*Indicates all quartile rankings were determined from the Mooney and are in terms of problems perceived. The first quartile included high problem perceivers.

TABLE XXIV

THE FALL MEAN, SPRING MEAN, AND ADJUSTED SPRING MEAN OF THE SECOND AND THIRD QUARTILES - HIGH SCHOOL PERSONALITY QUESTIONNAIRE (EXPERIMENTAL AND CONTROL)

HSPQ Factor	Group	Fall Mean	Spring Mean	Adjusted Mean
A	Exp.	5.686	4.092	4.947
	Cont.	5.378	5.267	5.204
B	Exp.	5.176	5.705	5.676
	Cont.	4.978	5.222	5.256
C	Exp.	5.275	4.980	5.073
	Cont.	5.244	5.333	5.229
D	Exp.	4.980	5.804	5.795
	Cont.	5.444	5.733	5.743
E	Exp.	5.863	5.706	5.653
	Cont.	5.267	5.444	5.505
F	Exp.	5.686	6.471	6.505
	Cont.	6.111	6.244	6.205
G	Exp.	5.686	5.137	5.075
	Cont.	5.111	5.022	5.093
H	Exp.	5.490	5.412	5.436
	Cont.	5.467	5.689	5.661
I	Exp.	5.353	5.843	5.911
	Cont.	5.533	5.774	5.989
J	Exp.	5.216	4.902	4.912
	Cont.	5.133	5.378	5.367
O	Exp.	5.431	5.333	5.209
	Cont.	5.222	5.511	5.652
Q_2	Exp.	4.843	5.137	5.182
	Cont.	5.044	4.800	4.749
Q_3	Exp.	4.941	5.627	5.668
	Cont.	4.955	5.578	5.531
Q_4	Exp.	5.549	5.765	5.678
	Cont.	5.911	5.866	5.965

TABLE XXV

THE FALL MEAN, SPRING MEAN, AND ADJUSTED SPRING MEAN OF THE FOURTH QUARTILE - HIGH SCHOOL PERSONALITY QUESTIONNAIRE (EXPERIMENTAL AND CONTROL)

HSPQ Factor	Group	Fall Mean	Spring Mean	Adjusted Mean
A	Exp.	6.538	6.192	6.093
	Cont.	6.087	6.261	6.373
B	Exp.	5.538	5.462	5.431
	Cont.	5.348	5.565	5.600
C	Exp.	7.269	6.962	6.652
	Cont.	6.043	6.087	6.437
D	Exp.	3.731	4.385	4.643
	Cont.	5.304	5.000	4.708
E	Exp.	5.654	5.192	5.210
	Cont.	5.913	6.043	6.023
F	Exp.	5.500	6.308	6.393
	Cont.	5.870	6.478	6.382
G	Exp.	7.038	6.231	5.971
	Cont.	5.870	5.217	5.511
H	Exp.	6.962	7.115	6.797
	Cont.	5.783	6.913	7.273
I	Exp.	5.385	5.346	5.362
	Cont.	5.478	5.391	5.373
J	Exp.	4.077	4.269	4.420
	Cont.	5.000	5.435	5.264
O	Exp.	4.115	4.462	4.559
	Cont.	4.696	4.087	3.977
Q_2	Exp.	5.192	3.769	3.732
	Cont.	4.261	4.522	4.564
Q_3	Exp.	6.538	6.192	5.976
	Cont.	5.565	4.696	4.940
Q_4	Exp.	4.038	5.115	5.397
	Cont.	5.130	5.826	5.508

TABLE XXVI

THE FALL MEAN, SPRING MEAN, AND ADJUSTED SPRING MEAN OF THE SRA ACHIEVEMENT SERIES (EXPERIMENTAL AND CONTROL)

SRA	Group	Fall Mean	Spring Mean	Adjusted Mean
Reference	Exp.	101.602	106.854	105.883
	Cont.	98.451	109.659	110.795
Charts	Exp.	104.000	118.631	115.711
	Cont.	94.670	112.593	115.898
Reading Comp	Exp.	95.262	101.252	99.165
	Cont.	88.780	96.725	99.088
Vocabulary	Exp.	100.136	107.815	106.573
	Cont.	96.175	105.967	107.374
Language Arts Capitalization Punctuation	Exp.	96.748	112.447	110.810
	Cont.	91.725	108.209	110.061
Grammar Usage	Exp.	89.737	102.981	102.628
	Cont.	88.681	106.176	106.575
Spelling	Exp.	92.835	95.738	95.270
	Cont.	91.494	98.923	99.452
Arithmetic Reasoning	Exp.	91.447	100.951	98.276
	Cont.	84.396	95.945	98.973
Arithmetic Concepts	Exp.	95.990	104.485	102.687
	Cont.	90.769	101.868	103.903
Arithmetic Composite	Exp.	91.466	95.097	92.147
	Cont.	84.703	96.890	100.229
Composite	Exp.	95.981	104.631	102.477
	Cont.	91.000	103.329	105.767

TABLE XXVII

THE FALL MEAN, SPRING MEAN, AND ADJUSTED SPRING MEAN OF THE FIRST QUARTILE* - SRA ACHIEVEMENT SERIES (EXPERIMENTAL AND CONTROL)

SRA	Group	Fall Mean	Spring Mean	Adjusted Mean
Reference	Exp.	91.423	98.923	99.182
	Cont.	92.739	105.000	104.707
Charts	Exp.	94.962	111.923	111.551
	Cont.	89.870	112.609	113.029
Reading Comp	Exp.	85.308	92.615	92.110
	Cont.	84.261	92.783	93.353
Vocabulary	Exp.	91.346	99.808	99.472
	Cont.	90.478	101.696	102.075
Language Arts Capitalization Punctuation	Exp.	91.346	108.192	107.582
	Cont.	92.565	108.522	109.212
Grammar Usage	Exp.	87.000	97.962	99.031
	Cont.	90.652	104.870	103.661
Spelling	Exp.	86.577	90.077	90.784
	Cont.	87.957	97.696	96.897
Arithmetic Reasoning	Exp.	83.000	88.385	88.532
	Cont.	84.087	94.348	94.182
Arithmetic Concepts	Exp.	87.846	92.731	92.981
	Cont.	89.348	103.565	103.282
Arithmetic Composite	Exp.	80.462	82.385	83.907
	Cont.	83.957	96.130	94.410
Composite	Exp.	87.923	96.270	96.341
	Cont.	88.565	101.739	101.658

*All quartile rankings established from Mooney and represent problems perceived.

TABLE XXVIII

THE FALL MEAN, SPRING MEAN, AND ADJUSTED SPRING MEAN OF THE SECOND AND THIRD QUARTILE - SRA ACHIEVEMENT SERIES (EXPERIMENTAL AND CONTROL)

SRA	Group	Fall Mean	Spring Mean	Adjusted Mean
Reference	Exp.	101.647	108.667	106.828
	Cont.	97.489	106.467	108.551
Charts	Exp.	106.255	120.059	116.110
	Cont.	95.644	111.156	115.631
Reading Comp	Exp.	97.333	103.412	102.710
	Cont.	93.289	98.556	99.351
Vocabulary	Exp.	101.804	108.765	108.008
	Cont.	92.267	108.356	109.213
Language Arts Capitalization Punctuation	Exp.	97.078	112.412	110.170
	Cont.	90.200	108.422	110.963
Grammar Usage	Exp.	86.686	100.961	100.794
	Cont.	86.755	107.467	107.655
Spelling	Exp.	91.765	95.627	96.193
	Cont.	94.422	100.756	100.114
Arithmetic Reasoning	Exp.	93.608	104.483	101.842
	Cont.	84.222	97.022	100.423
Arithmetic Concepts	Exp.	98.823	107.490	104.682
	Cont.	91.356	101.756	104.938
Arithmetic Composite	Exp.	93.804	97.294	93.003
	Cont.	84.089	97.533	102.396
Composite	Exp.	96.961	105.961	103.702
	Cont.	91.711	104.067	106.627

TABLE XXIX

THE FALL MEAN, SPRING MEAN, AND ADJUSTED SPRING MEAN OF THE FOURTH QUARTILE SRA ACHIEVEMENT SERIES (EXPERIMENTAL AND CONTROL)

SRA	Group	Fall Mean	Spring Mean	Adjusted Mean
Reference	Exp.	111.692	111.231	109.307
	Cont.	106.043	115.217	117.392
Charts	Exp.	108.615	122.538	119.231
	Cont.	97.565	115.391	119.130
Reading Comp	Exp.	101.154	105.654	100.128
	Cont.	84.478	97.087	103.334
Vocabulary	Exp.	105.654	113.961	111.187
	Cont.	95.826	105.565	108.701
Language Arts Capitalization Punctuation	Exp.	101.500	116.769	114.896
	Cont.	93.870	107.478	109.596
Grammar Usage	Exp.	98.462	111.962	110.061
	Cont.	90.478	104.957	107.105
Spelling	Exp.	101.192	101.615	97.229
	Cont.	89.304	96.565	101.523
Arithmetic Reasoning	Exp.	95.654	105.885	101.682
	Cont.	85.043	95.435	100.185
Arithmetic Concepts	Exp.	98.577	110.346	108.378
	Cont.	91.043	100.391	102.616
Arithmetic Composite	Exp.	97.884	103.500	98.889
	Cont.	86.652	96.391	101.604
Composite	Exp.	102.115	110.384	106.602
	Cont.	92.043	103.478	108.206

APPENDIX B

PARTIAL LIST OF BOOKS USED
(CATEGORIZED BY AREAS OF INTEREST)

UNDERSTANDING MY FAMILY

1. Alcott, Louisa Mae - Little Men
2. Alcott, Louisa Mae - Little Women
3. Aldridge, Beth Streeter - Lantern In Her Hand
4. Aldridge, Beth Streeter - Spring Came On Forever
5. Bailey, Harry - Fair Exchange
6. Beatty, Patricia - Bonanza Girl
7. Benary, Isbert - Rowan Farm
8. Brink, Carol - Caddie Woodlawn
9. Cavanna, Betty - Accent on April
10. Cavanna, Betty - The Boy Next Door
11. Crane, Lawrence - Gypsy Secret
12. Doss, Helen - The Family Nobody Wanted
13. Fletcher, Grace - Preacher's Kids
14. Forbes, Kathryn - Mama's Bank Account
15. Frank, Anne - Diary Of A Young Girl
16. Freedman, Nancy and Benedict - Mrs. Mike
17. Friermood, Elizabeth - The Luck Of Daphne Tolliver
18. Gilbreth, Frank B. Jr. - Cheaper By The Dozen
19. Lawrence, Mildred - Girl On Witches Hill
20. Lee, Harper - To Kill A Mockingbird
21. Means, Florence - Borrowed Brother
22. Moody, Ralph - Little Britches
23. Rose, Anna Perrott - Room For One More
24. Saroyan, William - The Human Comedy

25. Sherburne, Zoa - Almost April
26. Sherburne, Zoa - Stranger In The House
27. Summers, James - Tougher Than You Think
28. Walker, Mildred - Winter Wheat
29. West, Jessamyn - Friendly Persuasion
30. Young, Bob - One Small Voice

UNDERSTANDING MY MOTHER

1. Burgwyn, Mebane - Truelove For Jenny
2. Caudill, Rebecca - House Of Fifers
3. Cavanna, Betty - Going On Sixteen
4. Cavanna, Betty - Time For Tenderness
5. deLeerew, Adele - A Dear Stepmother
6. Nielsen, Jean - Green Eyes
7. Rendina, Laura Cooper - My Love For One
8. Shaler, Eleanor - Gaunt's Daughter
9. Spencer, Sharon - Breaking The Bonds
10. Sherburne, Zoa - Stranger In The House
11. Stolz, Mary - Ready Or Not

UNDERSTANDING MY STEPMOTHER

1. Leiviton, Mina - Divided Heart
2. Rendina, Laura - My Love For One
3. Sherburne, Zoa - Almost April
4. Stolz, Mary - The Sea Gulls Woke Me

UNDERSTANDING MY STEPPARENTS

1. Dickens, Charles - David Copperfield
2. Gates, Doria - Blue Willow
3. Sherburne, Zoa - Almost April
5. Weber, Lenora M. - Dear Beany
6. York, Carol Beach - Sparrow Lake

UNDERSTANDING MY FATHER

1. Archibald, Joe - Catcher's Choice
2. Archibald, Joe - First Base Hustler
3. Craig, Margaret - Three Who Met
4. Felsen, Henry Gregor - Crash Club
5. Felsen, Henry Gregor - Road Rocket
6. Felsen, Henry Gregor - Street Rod
7. Jacobs, Emma A. - A Chance To Belong
8. Johnson, Annabel and Edgar - Pickpocket Run
9. Lambert, Janet - Star Spangled Summer
10. McGraw, Eloise - Crown Fire
11. Prescott, John - Lion In The Hills
12. Sherburne, Zoa - Almost April
13. Spencer, Sharon - Breaking The Bonds
14. Stanford, Don - Red Car
15. Stanford, Don - Ski Town
16. Summers, James - Off The Beam
17. Summers, James - Tougher Than You Think
18. Tunis, John - The Iron Duke
19. Yates, Elizabeth - A Place For Father

ADJUSTING TO GROWING UP WITHOUT A PARENT

1. Beatty, Patricia - Bonanza Girl
2. Cavanna, Betty - Going On Sixteen
3. Corbin, William - High Road Home
4. Dickens, Charles - David Copperfield
5. Du Jardin, Rosamond - Double Date
6. Du Jardin, Rosamond - Double Feature
7. Felsen, Henry Gregor - Crash Club
8. Jacobs, Emma - For Each A Dream
9. Lambert, Janet - Star Spangled Summer
10. Lee, Harper - To Kill A Mockingbird
11. Leiviton, Mina - Divided Heart
12. Noble, Iris - Strangers No More
13. Saroyan, William - The Human Comedy
14. Sherburne, Zoa - Almost April
15. Sherburne, Zoa - Ballerina On Skates
16. Sherburne, Zoa - Princess In Denim

ADJUSTING TO PERSONAL DEVELOPMENT

A. Alcholic - Drugs

1. Pease, Howard - The Dark Adventure (Marijuana Ring)
2. Sherburne, Zoa - Jennifer (Alcholic mother)

B. Boys

1. Carson, John - Floorburns (Chip on shoulder - learns right way to win)
2. Conrad, Joseph - Lord Jim (Coward)
3. Douglas, Gilbert - Hardnose (Inferiority over being compared with brother)

4. Frick, C. H. - The Comeback Guy (Learning will-power)
5. Fritz, Jean - Brady (How to accept responsibility)
6. Gault, William - Rough Road To Glory (Self-discipline on race track)
7. Gorsline, Douglas - Farm Boy (Responsibility and self-discipline)
8. Griffith, John - Black Like Me (Author lived as Negro to understand struggles)
9. Hemingway, Ernest - Mr. Blue
10. Hemingway, Ernest - The Old Man And The Sea (Will not admit defeat)
11. Jackson, Jesse - Call Me Charley (Racial discrimination)
12. Person, Tom - Rebellion Of Ron Chatham (Values of a good education)
13. Porter, Mark - By The Great Horned Spoon
14. Porter, Mark - Winning Pitcher (Understanding different social levels)
15. Summers, Jim - Muscle Boy (Adjusting to group)
16. Summers, Jim - Off The Beam (Dangers of following the gang)
17. Summers, Jim - Operation ABC (Reading problem)
18. Summers, Jim - Tougher Than You Think (Transformation into manhood)

C. Boys and Girls

1. Cleary, Beverly - Jean and Johnny (Realizing shallowness of physical attraction)
2. Douglas, Lloyd - The Robe (Religion and christianity; wealth not true importance)
3. Lee, Harper - To Kill A Mockingbird (Human values; democracy)
4. Spencer, Sharon - Breaking The Bonds (Building a meaningful life in Peace Core work)
5. Stoutenbury, Adrien - Four On The Road (Young marriage has its problems)
6. Summers, Jim - Girl Trouble (Learning physical, mental and emotional maturity)

D. Girls

1. Alexander, Anne - The Pink Dress (Decision making)

2. Allee, Marjorie - Tradition (Learn to share with others)
3. Bell, Margaret - Watch For A Tall White Sail (Struggle against loneliness)
4. Breck, Vivian - Maggie (Responsibility develops maturity as she manages a mine in Mexico)
5. Breck, Vivian - White Water (Andrea will not attempt anything unless sure of success)
6. Bruce, Jeannette - The Wallflower (Four girls in New York grew tired of being wallflowers)
7. Butters, Dorothy Gilman - Heartbreak Street (Kitty works in a factory, determined to move her family out of the slums)
8. Cavanna, Betty - Angel On Skiis (Selfish, stubborn teenage girl learns to select values)
9. Cleary, Beverly - The Luckiest Girl (Lives with friends in California. Practice on making own decisions)
10. Craig, Margaret - Marsha
11. Daly, Maureen - Seventeenth Summer (Learns to appreciate best in everyone)
12. Du Jardin, Rosamond - Double Date (Twins learn to develop own personalities)
13. Du Jardin, Rosamond - Double Feature (Twins select individual friends)
14. Du Jardin, Rosamond - Senior Prom (Mary chooses between popular Bruce and dependable Ricky)
15. Duncan, Lois - The Middle Sister (Search for individuality)
16. Emery, Anne - A Dream To Touch (Two girls in a family find love)
17. Frank, Anne - Diary Of A Young Girl (Struggle for survival)
18. Harrison, Crane B. - The Odd One (Thought she was ugly and unloved)
19. Killilea, Marie - With Love From Karen
20. Lindgrin, Astrid - Kati In Paris (Young marriage)
21. Low, Elizabeth - Hold Fast The Dream (Defeat and Success)
22. Means, Florence Crannell - Shuttered Windows (Learns how pride and self-respect add dignity to the most humble lives)
23. Nielsen, Jean - Green Eyes (Jealous; possessive)

24. Rendina, Laura - My Love For One (Confused about her family and herself)

25. Robinson, Mabel - Bright Island (Learning values of friendship)

26. Stolz, Mary - Pray Love Remember (Self-centered)

27. Stolz, Mary - To Tell Your Love (Unhappy first romance)

28. Summers, Jim - Ring Around Her Finger (Jack and Lucy marry soon out of high school and face too many responsibilities too soon)

29. West, Jessamyn - Cress Delahanty (Uses strategy to win popularity and discovers her true self)

E. Overweight

1. Benson, Sally - Junior Miss
2. Cavanna, Betty - Stars in Her Eyes
3. Felsen, Henry - Bertie
4. Field, Rachel - Hepatica Hawks
5. Sherburne, Zoa - Ballerina On Skates
6. Stolz, Mary - In A Mirror

F. Undersized

1. Armer, Alberta - Screwball
2. Meader, Stephen - Sparkplug Of The Hornets

FINDING A PLACE FOR MYSELF IN THE FUTURE

A. Acting

1. DeLaToue, Lillian - The Actress
2. deLeerew, Adele - Curtain Call
3. Howard, Lisa - On Stage, Miss Douglas
4. Lambert, Janet - Up Goes The Curtain
5. Walden, Amelia - Sunnycove

B. Art

1. Cavanna, Betty - Paintbox Summer (Commercial art)
2. deLeerew, Adele - Clay Fingers (Ceramics)
3. Hobart, Lois - A Palette For Ingrid (Artist)
4. Miller, D. D. - The Story Of Walt Disney (Artist)

C. Farming

1. Corey, Paul - Milk To Load
2. Pitkin, Dorothy - The Grass Was That High

D. Flying

1. Hill, Margaret - Hostess In The Sky (Training for sky lanes)
2. Lent, Henry - Jet Pilot (Combat pilot)

E. Journalism

1. Corbin, William - Deadline
2. Nielsen, Jean - Green Eyes

F. Nursing

1. Lewis, Ed - Nurse
2. Roberts, Mary D. - Get With It, Joan
3. Russell, Sheila Mackay - A Lamp Is Heavy
4. Wydham, Lee - Candy Strippers (Aid in hospital)

G. Sea Life

1. Crisp, Frank - The Java Wreckman (Salvage diver)
2. Ellsberg, Edward - Ocean's Gold (Retrieving sunken treasure)
3. Pease, Howard - Bound For Singapore

H. Teaching

1. Baner, Skulda Vanadis - First Parting
2. Betts, Meriam Parker - Tomboy Teacher
3. Fulton, Reed - Rookie Coach
4. Spencer, Sharon - Breaking The Bonds
5. Stuart, Jesse - Thread That Runs So True
6. Walden, Amelia - Where's My Heart

I. Others

1. Annixter, Paul - Swiftwater (Trapping)
2. Billings, Henry - Bridges (Engineering)
3. Friermood, Elizabeth Hamilton - Head High, Ellen Brady (Fashion designer and social service)
4. Freer, Marjorie - Orchids For April (Flowers and creative talent)
5. Horsley, Fred - Hot Rod Handbook (Mechanics)
6. Hulme, Katherine - Nun's Story (Inner defeat)
7. McFadden and Carnahan - Which Way Judy (Social service)
8. Sherburne, Zoa - Ballerina On Skates (Commercial skater)
9. Turnball, Agnes - The Bishop's Mantle (Minister)
10. Whitney, Phyllis - The Highest Dream (Guide at the United Nations)
11. Wyndham, Lee - Beth Hilton, Model
12. Wyndham, Lee - Lady Architect

VICARIOUS EXPERIENCES FOR THE ADVENTURE NEEDS OF ADOLESCENTS

1. Andrews, Laurie - Deadly Patrol
2. Bart, Andre Schwarz - Last Of The Just
3. Best, Herbert - Webfoot Warriors

4. Bonham, Frank - Speedway Contender
5. Bonham, Frank - War Beneath The Sea
6. Boulle, Pierre - The Bridge On The River Kwai
7. Bowen, Robert - Hot Rod Angels
8. Boyd, James - Drums
9. Bracco, Edgar - Flight
10. Campbell, R. W. - Drag Doll
11. Carter, Bruce - Fast Circuit
12. Chamberlain, William - Combat General
13. Chamberlain, William - Combat Stories Of World War II
14. Churchill, Winston - River War
15. Condon, Richard - Manchurian Candidate
16. Felsen, Henry Gregor - Crash Club
17. Felsen, Henry Gregor - Hot Rod
18. Felsen, Henry Gregor - Hot Rod Fury
19. Felsen, Henry Gregor - Road Rocket
20. Felsen, Henry Gregor - Street Rod
21. Forester, Cecil Scott - Last Nine Days Of The Bismarck
22. Gault, William - Drag Strip
23. Gault, William - Speedway Challenge
24. Gault, William - Thunder Road
25. Gault, William - Wheels Of Fortune
26. Gibbons, Floyd - The Red Knight Of Germany
27. Grider, George and Lydel Sims - War Fish
28. Homer - The Iliad
29. Huxley, Aldous - Brave New World
30. Icenhower, Joseph B. - Scarlet Raider

31. Knight, Calyton - Normandy Invasion

32. Knight, Ruth Adam - Valiant Comrades

33. Lawson, Ted - 30 Seconds Over Tokyo

34. Loomis, Robert D. - Great American Fighter Pilots Of World War II

35. Mann, Abby - Judgement At Nuremberg

36. Marshall, S. L. A. - Porkchop Hill

37. Michener, James - Bridge At Andau

38. Michener, James - Bridges At Tokio-Ri

39. Nordhoff and Hall - Falcons Of France

40. Ogan, Margaret and George - Devil Drivers

41. Olsen, Gene - Red, Red Roadster

42. Remarque, Erich Maria - All Quiet On The Western Front

43. Rooney, Andrew - The Fortunes Of War

44. Ryan, Cornelius - The Longest Day

45. Scott, Robert - God Is My Co-Pilot

46. Scott, Robert - Tiger In The Sky

47. Shaw, W. W. - Gentlemen, Start Your Engines

48. Shirer, William - Rise And Fall Of Hitler

49. Shirreffs, Gordon - Action Front

50. Shute, Nevil - On The Beach

51. Stanford, Don - Red Car

52. Summers, Jim - Heartbreak Hot Rod

53. Tregaskis, Richard - Guadalcanal Diary

54. Uris, Leon - Angry Hills

55. Uris, Leon - Battle Cry

56. Uris, Leon - Exodus

57. Wheeler and Burdick - Fail Safe
58. White, Robb - Torpedo Run
59. White, Robb - Up Periscope
60. White, Stewart - The Long Rifle
61. Wouk, Herman - The Caine Mutiny
62. Yates, Brock - Indiannapolis Cars And Drivers

BREAKING AGAINST THE GOALS OF SOCIETY

1. Alexander, Anne - The Pink Dress
2. Beim, Jerrold - Trouble After School
3. Bowen, Robert - Hot Rod Angels
4. Carson, John F. - Twenty-third Street Crusaders
5. Emery, Anne - A Dream To Touch
6. Felsen, Henry Gregor - Crash Club
7. Felsen, Henry Gregor - Hot Rod
8. Felsen, Henry Gregor - Road Rocket
9. Felsen, Henry Gregor - Street Rod
10. Gollomb, Joseph - Up At City High
11. Liggett, Thomas - The Hollow
12. Pease, Howard - The Dark Adventure
13. Shulman, Irving - West Side Story
14. Stolz, Mary - The Day And The Way We Met
15. Summers, Jim - Off The Beam
16. Tunis, John - Go, Team, Go
17. Young, Bob and Jan - Across The Tracks

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